

## CHAPTER IX.

### MILITARY ADMINISTRATION.

Up to this point I have chiefly dealt with the part of the German military establishment which constitutes the combatant force, including the railway and other technical troops, who, though not primarily intended to fight, are armed, equipped and ready for use as fighting soldiers, and including also the "General Staff" and the *Adjutantur*, whose officers, while not belonging to battalions or regiments, are directly employed in connection with the conduct of military operations for which they have been specially trained. Before taking up the important subject of military administration it may not be amiss to point out that in addition to the officers of the fighting force, as thus defined, none but military physicians (*Militär-Ärzte*) are styled officers, and these only as a body and with the qualifying prefix "Sanitary" (*Sanitäts-Offiziere\**), and that persons connected with the administrative departments other than laborers, messengers, and men of that class, are comprehended under the general term of *officials* of the military administration (*Beamte der Militär-Verwaltung*). These officials are divided into two general classes, viz: Into military and civil officials of the military administration, the former being attached to corps and division staffs or to the troops, and the latter serving at the War Ministry, with "magazine administrations," at the War Academy, etc. The chief distinguishing feature of the two is that the military officials are, and the civil officials are not, amenable to military jurisdiction. Both are again classified into higher and lower officials. The higher ones, who are, as a rule, university men, or graduates of technical institutes corresponding to universities, have officers' but not relative rank, and are regarded as occupying positions on a par with those of officers, while the position of the lower functionaries corresponds more nearly to that of noncommissioned officers. The military officials of the military administration are required to wear uniform, which in the case of the higher class is similar to, though easily distinguishable from, the uniform worn by officers.

It is deemed highly important in the German service not to obliterate the distinction between combatants and noncombatants, though the fact is not lost sight of that the effectiveness of the former depends to a great extent upon the latter, as is evidenced by the great care that is exercised in the selection of these officials, as well as by their compensation, which compares favorably with that of the officers of the fighting force. The higher officials of the *intendantur*, the *Auditeurs* (judge-advocates), the military clergy, and the corps and superior veterinary surgeons, when in uniform, are saluted by enlisted men and exchange salutations with officers.

FUNDAMENTAL PRINCIPLES.—The following principals relating to administration are regarded as fundamental in Germany: Upon the military administration, as part of the State administration, devolves the task of so organizing the national forces that they are always in condition to aid in the accomplishment of the purposes of the State. It may be said, therefore, that army administration, in its widest sense, is concerned with the raising, the maintenance, and the utilization of the land forces. For the execution of administrative

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\*As individuals, sanitary officers are addressed, not as captains, majors, etc., titles implying eligibility to command companies, battalions, etc., but as "assistant surgeon," or "staff surgeon," etc., and this in spite of the fact that they are assimilated in rank to the various commissioned grades of the fighting force.

functions, the head of the State requires organs. These organs have a collegiate or bureaucratic organization, according as the members by a majority vote, or the chief or president by his *ipse dixit*, decides what is to be done in a particular case. The German military authorities are bureaucratically organized, barring only courts-martial and courts of honor, and the action of even these tribunals requires the assent of an individual to make them effective.

Military authorities who superintend the training and utilization of troops are styled commands (*Kommando Behörden*); those from a brigade upwards, higher commands.

The object of the army and its parts is their proper utilization; for this the administration—the term is here used in its ordinary, that is, more restricted sense—is only an instrumentality. It follows that administrative officers must be subordinated to commanding officers. For the attainment of military objects one-man power is indispensable; hence the necessity, not only of military obedience, but of the greatest possible amalgamation of command and administration. The converging point of the two is found in the person of the Emperor, as the Commander-in-Chief of the Army and Navy. Accordingly, the regulations, instructions, and orders touching the army require his assent, and the War Ministry is only an executive organ so far as concerns the administration, while the heads of commands represent him when issuing orders. The latter are not, therefore, subordinate to the War Minister, but only bound to conform to his instructions touching matters of administration. In descending the scale of military hierarchy, the several branches of administration are more distinguishable as requiring special executive organs, until we find them united again at the lowest step in the chief of the company.

As regards the relations between commanding officers and administrative organs, the following systems may be distinguished:

(1) The latter are absolutely subject to the former. This state of things prevailed during the existence of hired armies, which consisted of regiments recruited and maintained pursuant to agreements between the colonels and commanders-in-chief, and in peace time stood under the latter's immediate command. Nowadays, when military administration in every State is based upon specific appropriations, and the expenditures must be apportioned accordingly, such a relation would impose too great a responsibility upon the commander. Absolute amalgamation of command and administration, advantageous as it would be in itself, does not, therefore, occur in any army of the present day.

(2) The administrative organs are independent of the commanders. The system is likely to produce friction unfavorable to if not destructive of military action, and is specially disadvantageous when applied to the central authority. Its drawbacks became manifest to the British army during the siege of Sebastopol, and the French defeats of 1870-71 are largely ascribed in France to lack of cooperation between command and administration, although the French war minister was (and is) at the head of both.

(3) The administrative organs, though in general responsible themselves, are in the end bound by the decisions of the commander, and are therefore his subordinates. This system prevails in the German Army. It makes military command paramount, and insures unity of action, by giving to the commander the deciding voice in the event of disagreement between himself and the administrative organ, and enabling him to assume the responsibility in a particular case.

THE INTENDANTUR.—I shall now briefly describe the organization and duties of the several branches of the military administration, beginning with the military intendantur. The supervision of all matters relating to pay, subsistence, clothing, fuel, forage, the erection and repair of barracks, hospitals, workshops, and in fact of all structures (other than fortifications) intended for military purposes, as well as the acquisition of grounds for military buildings, cemeteries, granaries, etc., devolve on this department, so far as they are not

specially intrusted to the troops. On the whole, it may be said that the functions of the intendantur resemble those of our pay, subsistence, and quartermaster's departments. The intendantur is the intermediate authority between the War Ministry and the special subordinate supply departments, to be hereafter referred to. The intendants have a double relation, viz: First, to the War Minister, and secondly, to the troops and their commanders. As representatives of the former, they must see that all branches of military economy affecting the troops are carried on according to regulations. On the one hand, they are to take care that all organizations and individuals receive their due, and on the other to prevent excessive issues and allowances, and to regard themselves as the guardians of the public treasury. They are subordinate to and the executive organs of the War Department and its bureaus. There is an intendantur at the headquarters of each corps, whose head is the corps intendant, and which is divided into—

- (1) A finance division.
- (2) A division having to do with the supplies in kind other than clothing.
- (3) A clothing division.
- (4) A "garrison administration" division.
- (5) A "hospital administration" division.

A chief constructor is assigned to each corps intendant, to whom all matters relating to building operations, which require to be dealt with by an expert, are referred by the intendant, his immediate superior. The chief of each division, an intendantur counselor (*Rath*), or intendantur assessor, is assisted by a number of clerks graded as intendantur secretaries or assistant secretaries, intendantur registrars or assistant registrars, and by ordinary clerks (*Kanzlisten*). All new rules touching the supply and intended for the guidance of the troops must be announced in orders by the commanding general unless they have been officially promulgated by the War Minister.

An intendantur is also attached to each divisional headquarters, which is subordinated to that of the corps and occupies toward the division commander the same relation that exists between the corps intendantur and commanding general. In general, it may be said that the sphere of duty of the corps intendantur embraces all branches of military economy of the army corps or army-corps district which are either territorial in their nature (relating to the acquisition of real estate, erection of public buildings, etc.), or pertain to troops, officers, or officials not included in a divisional command, the affairs of the troops included in such commands being dealt with by the division intendantur.

The following is a more specific enumeration of the functions of the corps intendantur: The appointment of paymasters; the purchase of forage and breadstuffs; the supervision of granaries and bakeries; the personal affairs of the officers of the supply departments; the procurement of the cloth and other articles needed for the clothing and equipment of the troops, as well as of the land, buildings, and utensils required for their comfort and shelter; the supervision of the administration of barracks and hospitals; cooperation in the administration of funds and property pertaining to the system of military education and training; to the technical institutes (artillery workshops, depots, etc.) of the artillery and engineer systems, and to the remount depots; affairs relating to the mobilization of the corps administrative departments, and to pensions; compensation to municipal authorities on account of quarters, subsistence, forage, and transportation furnished to troops; the military economic affairs of staffs, troops, nonregimental officers and officials of the corps not attached to divisions, or who are not allotted to the divisional intendantur.

The sphere of duty of the latter embraces all affairs relating to the pay, commutation of quarters, and travel allowances of divisional troops, nonregimental officers and officials; the examination and settlement of property and money accounts, including the holding of

unexpected inspections (*unvermuthete Revisionen*) of the disbursing offices pertaining to the divisional troops; matters relating to the clothing and equipment of such troops; participation in the biennial musters; the subsistence of troops and reservists.

*Selection and Training of Intendantur Officials.*—As has been already stated, these are divided into higher and lower officials. The former consists of military intendants (corps intendants), intendantur counselors, intendantur assessors, and intendantur “referendarii.” To the lowest grade of this class are admitted—

(1) Suitable first and second lieutenants of the active army of not less than six years' service as officers.

(2) Young men of the legal profession in possession of high testimonials who have been attached to the civil courts for two years and are reserve officers.

(3) Lower functionaries of the intendantur of tact and unexceptionable deportment who have distinguished themselves in the performance of their duties, possess the requisite scientific education, and are reserve or landwehr officers.

A written and oral examination of the candidate follows his preliminary training of not less than two and one-half years, during which he is attached for short periods to a forage and subsistence magazine (*Proviant-Amt*), to a “garrison administration,” to a “hospital administration,” to the corps clothing depot, to the provisional treasury situated at the headquarters of the corps, and to the disbursing office and clothing committee of a battalion stationed at corps headquarters. The written examination consists in a scientific treatise and a paper upon a branch of military economy, which latter must be practical in its nature. The oral examination must show perfect familiarity with army organization, with the relations between the civil and military authorities, with the rights and obligations of the military administrative departments toward commanders of corps, divisions, and fortresses; a sufficient knowledge of the constitution and of the administrative departments of the State; a thorough knowledge, theoretical and practical, of all branches of military economy, in peace and war; and, finally, a fair knowledge of political economy, of public and private law, of international law and statistics, particularly industrial statistics.

The lower functionaries of the intendantur consist of secretaries, registrars, and copyists. The bulk of the secretaries is recruited from paymaster aspirants who, if they have entered as one-year volunteers, must have served as noncommissioned officers with troops for one year, or who—in case they belong to the category of men who were originally enrolled for three years—have served three or more years with the colors, one year in the grade of noncommissioned officer. Candidates must fulfill the following requirements: They must have passed the paymaster examination with distinction; must present evidence of unexceptionable deportment, be free from debt, unmarried, not above the age of 28, and in possession of a certificate that they are ripe for the prima (first class) of a gymnasium or Real school. In the lack of applicants of this class, noncommissioned officers of more than twelve years' service, who are entitled to public employment may be admitted to candidature. After one year's training in all branches of the intendantur, candidates are examined by a board, consisting of the corps intendant and two other members of the intendantur, as to their proficiency in examining accounts and in their practical knowledge of the various duties they may be called upon to perform. Secretaries are personally responsible for the non-discovery of errors occurring in accounts submitted to them for examination. The antecedents of applicants for positions as registrars and copyists are also closely scrutinized, and their fitness for the duties carefully inquired into—in the cases of registrars by an examining board.

**PAYMASTERS.**—The duties of paymasters will be explained further on. A paymaster is appointed for each battalion, cavalry regiment, cadet house, and other educational institutions.

Paymasters are appointed from the noncommissioned grades, preference being given to men who entered as one-year volunteers. To be eligible for appointment as such, a noncommissioned officer must have served two years with the colors, one year as a noncommissioned officer, must be unmarried and have sustained an excellent character for probity, order, energy, and zeal. These preliminary conditions being fulfilled, the candidate is assigned to duty with an efficient paymaster and with the battalion clothing committee for instruction; whenever practicable he is also attached for a short time to the paymaster of an arm other than his own. When in the judgment of his instructors he has become qualified to perform the duties of paymaster, he is employed for not less than nine months in connection with either the division or corps intendatur, that he may familiarize himself with the work of examining accounts, etc. At the end of this period he applies for admission to an examination by a board, which consists of a field officer as president, a member of the intendatur, and a subaltern officer who must be a member of a battalion clothing commission; the field officer and the third member being designated by the corps or division commander, and the second member by the corps intendant. If the third member is a paymaster, the intendant is also to be consulted in his selection. The examination is both written and oral. The written examination is conducted by the intendant (second) member of the commission and embraces, besides a description of the candidate's life, an essay on a subject of military administration. If the examination is satisfactory, the board convenes for the purpose of examining the candidate orally. This latter examination touches upon—

(1) The organization of the army in general, and the duties of paymasters in particular.

(2) The regulations concerning public funds, pay, clothing, subsistence, travel allowances, and matters pertaining to transportation.

(3) The interior economy, bookkeeping, and system of accountability of companies, battalions, and regiments.

The several parts of the examination as above enumerated are conducted by the president, second (intendant) member, and the third member respectively. If the result of the written and oral examination is certified to as either excellent or good, the name of the candidate is, upon his application to corps headquarters, entered in the list of "paymaster aspirants." The order of precedence of aspirants within a corps district who have passed the examination during the same month is determined by their standing at the examination, and, in case the examination of two or more is valued alike, by relative rank. A paymaster aspirant is provided for in the army appropriation act as assistant to each paymaster of a battalion and cavalry regiment. If there are no vacancies in the places of such assistants, the aspirant remains with his command, but is usually assigned to duty with the paymaster as "second assistant," or to replace the first assistant, if the same has been ordered (as he may be) to discharge the functions of an absent or disabled paymaster. If the aspirant was not already a sergeant, he is promoted to that grade after the passage of the examination. An aspirant acting as an assistant attains the rank of first sergeant after eight years' service—war service counting double. A vacancy occurring in a paymastership within the corps district is filled, as a rule, by the senior paymaster aspirant, after he has served as paymaster for six months on probation. The appointment is made by the War Ministry upon the nomination of the commanding general, after the latter has heard the intendant's recommendation in the premises.

Paymasters have officers' rank, but, except on the occasions of the banquets periodically given by the officers of regiments, do not mingle with them socially. They are saluted by enlisted men and are required to salute field officers. With company officers they exchange salutes as a matter of courtesy.

THE MAGAZINE ADMINISTRATIONS.—The magazine administrations (*Magazin-Verwaltungen*) consist of officials designated according to the rank held by them as directors, provision and

forage masters, *Rendants* (accountants), controllers and assistants, and are attached to garrison or field magazines. Under the direction of the corps intendantur they procure, preserve, and issue bread stuffs, forage, and under certain circumstances also beef and other subsistence stores, including canned or otherwise preserved meats and vegetables. They also furnish the needed reserve supplies to the fortresses, conduct the garrison bakeries or superintend the supply of bread to the troops under contract, pay commutation of bread and forage, establish temporary magazines in connection with the concentration of troops in large bodies, and carry out all orders of the intendantur relating to the subsistence of troops and foraging of public animals. The superintendent of a magazine, according to its size or importance, may be either a director, provision master, or *rendant*. Subject to his orders are "assistants" and laborers; the latter are hired by himself and may be discharged on reasonable notice for cause, or because their services are no longer required.\*

Forage and subsistence stores are still largely procured under contract, although it is the policy of the government to encourage the purchase of such supplies at market rates from the actual producers. They are paid for in cash and the receipt of the seller is filed in support of a book entry descriptive of the transaction and remains in the office. The only account of these transactions and of issues to troops consists in a statement accompanying the quarterly requisition upon the corps intendantur for funds, showing how funds and property reported as on hand at the end of the last quarter were disposed of, or what portion of them remains on hand. Though there are no other accounts forwarded to superior authority, the vouchers are scrutinized on the occasions of the periodical and unexpected inspections which the intendantur makes of every disbursing office (*Kasse*) during the year.

Large amounts of money are necessarily expended in connection with the administration of the magazines; but I was informed that defalcations are rare, notwithstanding the comparatively few and apparently insufficient checks to which the transactions of the magazine functionaries are subjected. The explanation of this lies, it is understood, in the certainty of the tenure of their office, the care with which they are selected, and the inability of one to resort to dishonest practices without the knowledge of the others.

The higher functionaries of the magazine administrations are chiefly recruited from two classes, viz: (a) From officers who have quit the army with the prospect of employment in the civil service; and (b) from aspirants for appointment to the magazine administration.

Eligible under (a) are inactive officers of unexceptionable deportment not less than 26 nor more than 40 years old who are fit for field service, wholly free from pecuniary embarrassment and prepared to give security for the faithful discharge of their duties. If, after a preliminary training in the magazine service of not less than two years, during which he receives as a rule no compensation, a candidate is regarded as a promising subject by the corps intendantur, a commission is convened by the War Ministry for his oral and written examination. Having exhibited at the examination a satisfactory knowledge of subsistence and forage supplies, the methods of caring for such supplies, the preparation of army conserves, the prescribed system of accounting for property and funds, and the laws and regulations governing the magazine service, he may be appointed controller, whence his promotion to higher positions in the department follows in due course.

Under head (b) suitable noncommissioned officers of not less than six years' service in the active army, falling within the age limit of 26 and 32 years, may apply for appointment as aspirants if they can submit evidence that their conduct has been laudable, that their financial

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\*The magazine of the garrison of Berlin, embracing, besides the forage buildings, a number of buildings where field cooking apparatuses are stored, is a very extensive establishment. I was shown through the principal granary, an immense building, containing large quantities of oats, and provided with an ingenious apparatus by which the oats can be transferred from the lowest to the top (fifth) floor, and thence successively dropped through small apertures to a lower floor; the process at once thoroughly cleansing and airing the grain.

affairs are well ordered, and that they possess the requisite physical and educational qualifications. The application of such a candidate having been approved by the commanding general, he undergoes a two years' preliminary training in the duties pertaining to the magazine service. If at the end of this term he passes the prescribed examination, he is appointed aspirant for a position in the magazine administration with the rank of first sergeant, and attached for duty as such to a magazine. His advance to the grade of "assistant" depends upon the occurrence of vacancies and the date of his appointment. He is eligible to advancement to the higher grades in the department.

The power of appointing the subordinate personnel, such as millers, machinists, etc., is vested in the corps intendantur. The bakers are detailed soldiers.

THE GARRISON ADMINISTRATIONS.—Garrison administrations (*Garrison-Verwaltungen*) have charge, subject to the direction of the corps intendantur, of all lands, sites, and buildings which are intended for the shelter or use of the troops of a garrison. Barracks, stables, shops, guardhouses, military prisons, storehouses, gun and wagon sheds, magazines, wood-yards and sheds, officers' quarters and mess rooms, garrison churches, cemeteries, and other buildings and rooms not under the exclusive control of any other department are looked after and kept in condition by the garrison administrations. They also provide, preserve, and issue the regulation allowance of bed sheets, woolen blankets, coverlets, towels, pillow-cases, bed sacks, table and kitchen utensils, fuel, and illuminating material. An "administration" is designated as "royal" when composed of officials appointed by, and maintaining the garrison buildings at the expense of, the Government, and "municipal" (*magistratualisch*) when the administrative functions have been turned over to the city authorities, and these are legally required to assume them gratuitously. Garrison administration officials are designated according to their rank as directors, superior inspectors, inspectors, and barrack inspectors, the last named being usually in immediate charge of a regimental barrack and its subsidiary buildings, and the inspectors and higher officials having the oversight of the administration of a number of such barracks. Appointments are confined to two classes of applicants, viz: (a) To persons retired as officers with pension and the prospect of employment in the civil service,\* and (b) to noncommissioned officers either still in active service or discharged after serving twelve years with the colors—the term prescribed by law as entitling them to public employment.

After establishing his status as above mentioned, also good conduct, past and present physical ability to discharge his duties even under trying circumstances, freedom from debt, and ability to give security, the applicant under (a) is subjected, eight weeks prior to the expiration of one year's probationary service in connection with one of the more important garrison administrations to a written examination. The examination embraces the following subjects:

- (1) The construction, fitting up, and repair of garrison buildings.
- (2) Procurement, preservation, and use of utensils and materials.
- (3) The prescribed system of accounts.

The rules governing the appointment of active or discharged noncommissioned officers to the garrison administration are similar; but the examination is of larger scope, being both written and oral. Certain noncommissioned officers who have passed the ordnance officer (*Zeug Offizier*) or the paymaster examination are exempted from this examination.

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\*That retired officers are deemed fit for and admitted to important positions in the subordinate administrative departments, as well as in the civil service, is explained by the fact that retirement from active service does not necessarily indicate physical, mental, or moral deficiency on the part of the officer retired. Thus, an officer may be compelled to quit the active list in consequence of demonstrated inaptitude for command, though unattended by lack of zeal or energy, or because he has married a woman below him in the social scale, or whom he can not fittingly support, or for other reasons not compromising his standing or character in a civil community.

THE HOSPITAL ADMINISTRATIONS.—In line with the considerations which in 1869 led to the transfer of the central supervision of the system of hospital administration from the military economic department to a specially instituted medicinal division of the War Ministry, military physicians (designated chief physicians) have, since 1876, become the heads of the various hospital administrations. In the German Army, as in the armies of most other European countries, the sick from all organizations serving in one garrison who can not be treated in quarters enter the same hospital, though the barracks of such organizations may be widely apart. Berlin and several of the other large garrison towns are divided into two hospital districts with a hospital in each.

The hospital administration officials (who, it is to be noted, are not medical men, but are appointed after probation from the same class from which the functionaries of the garrison administration are drawn) have, however, been continued in service since the change in the immediate control of hospitals above referred to. They are designated as superior hospital inspectors and hospital inspectors. In the larger hospitals to which such inspectors are assigned the chief physician is excused from attending to the details of the interior economy of the hospital; yet he remains responsible for any loss or damage of property due to lack of supervision or to faulty instructions on his part. In large hospitals a disbursing and economic commission (*Kassen und Ökonomie Commission*) consisting of one or two hospital inspectors is instituted, which also keeps the books and accounts, and is subject to the orders of the chief physician. In small hospitals the business of such a commission is performed by the chief physician, who is assisted by a detailed noncommissioned officer acting as accountant. To guard against the exclusion of the military element from the control of the hospital system, such control, together with the higher disciplinary punishment power, is vested in the commandant or the senior officer of the garrison. The chief physician exercises, however, the punishment power of the chief of a company over the assistant and one-year volunteer physicians, as well as over the hospital assistants and nurses, and is empowered to impose a fine up to \$2.25 upon the officials of the hospital administration and the military apothecaries. Regimental and independent battalion commanders of patients treated in hospitals are authorized to visit the latter, and to enter a statement of any improprieties or defects observed by them in a book set apart for the purpose. Military hospitals are, as regards most matters, subordinated to the intendantur of the corps, which, in conjunction with the corps physician general, conducts and superintends the hospital system. Controlled exclusively by the intendantur is the administrative and economic business, especially the general administration and police, the appointment or hiring of the administrative personnel, the purchase or erection and the repair of buildings, the purchase of sites for hospitals, the purchase and preservation of medicaments, bandages, and utensils, the subsistence of the hospital inmates, and matters pertaining to expenditures and accounts. As regards these, the physician general acts only in consultation with the intendantur. The superintendence of the physicians as regards medical and dietetic matters and their professional treatment of the sick, the inspection of dispensaries and of the medicaments supplied them, fall within the sphere of the authority of the physician general.

A peculiarity of the German hospital service is that sick soldiers, while in hospital, receive a special rate of pay which amounts to considerably less than their duty pay. Officers and officials with officers' rank under treatment in hospital pay 36 cents per day for their subsistence.

THE CORPS CLOTHING DEPARTMENTS have certain officials classed as *rendants* and assistants attached to them, who are selected either from retired officers or from active and inactive officers, the conditions of admission to the preliminary tests being substantially the same as those prescribed in cases of candidates for appointment to garrison administrations.

## CHAPTER X.

### FINANCE.

PUBLIC FUNDS AND PROPERTY.—Each infantry, artillery, pioneer, railway and train battalion, cavalry regiment, landwehr district headquarters, noncommissioned officers' school, and other separate organization or formation is supplied with funds for the payment of salaries due to the officers, physicians, and officials, and of the pay due to the men belonging to it, and also for defraying various expenses, such as arise from the clothing, subsistence, etc., of the command, and for which certain fixed sums are set apart. The staffs of the infantry, artillery, and railway regiments are, for the purpose of payment, attached to one of their battalions, in the treasure chest of which are also deposited the funds that are intended for regimental (as distinguished from battalion) purposes. The administration of the funds mentioned devolves upon a commission (*Kassen Commission*) consisting of the commander, the officer next in rank, and the paymaster. The money transactions of the troops are controlled by the intendantur—by the division intendant in the case of troops belonging to divisional commands, and the commissions referred to are required to conform to its general instructions and to afford it all necessary information. The intendant is not, however, the superior of the members of the commission, and therefore must obtain the orders of the commanding general when desiring to inspect its books and funds.

Each treasure chest is supplied with three locks of different construction, the keys of which must at all times be in the personal possession of the members of the commission or their authorized representatives. In garrison the chest is kept either in the quarters of the commander, or in a room contiguous to the guardhouse and under charge of the guard. On the march it is placed in a wagon which is under the custody of the guard.

The authorized expenses of the German Army form the sixth section of the annual federal appropriation act, and are divided into thirty chapters, each of which is again subdivided into a number of "titles" under which are severally grouped (1) items of "pay" and other personal compensations or remunerations, and (2) expenses for material (*sächliche Angaben*). Corresponding to this arrangement, estimates are annually submitted by the local\* administrative authorities (battalions, garrison administrations, etc.), to the provincial administration, viz., the corps intendantur, whence, after examination and consolidation they are forwarded to the proper bureaus of the War Ministry and by them referred to the finance division of the Ministry, and used as a basis for the preparation of the estimate for the entire military establishment. The War Minister having affixed his signature to it, the

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\*The terms "local authorities" (*Local-Behörden*) and "provincial authorities" (*Provinzial-Behörden*) occur frequently in German Army orders and regulations in contradistinction to the central or highest authorities which are located at the seat of Government. The term "provincial authorities," corresponding to our department headquarters, comprises the headquarters of army corps, the military intendanturs, the division headquarters, the artillery and engineer inspections, the brigade headquarters, the artillery inspections, and the fortress inspections. Under the term "local authorities" are grouped the gouverneurs and commandants of fortresses, the technical institutes of the artillery, the small arms and ammunition factories, the artillery depots, the regiments and independent battalions, the institutes for military education and training, the fortress prisons, the disbursing commissions of the troops, the magazine administrations, the train depots, the corps clothing depots the garrison administrations, the hospital administrations, and the remount depots.

estimate is passed through the Imperial Chancellor to the Federal Council and the Reichstag. When enacted into and promulgated as law separate extracts of several chapters and parts thereof, accompanied by statements showing exactly for what purposes, what amount, and under what head the appropriated funds may be expended, are furnished by the War Ministry to the intendantur of each army corps, which transmits a copy of it to the disbursing office of the corps (*Korps Zahlungsstelle*). The latter, though a branch of the Government subtreasury located at the headquarters of the corps,\* has a running account with the general or Central Military Treasury, as well as with the Imperial Treasury, both located in Berlin. The entire income of the Empire, collected in the several federal states, flows into the last-named treasury, partly in cash, and in part in the shape of receipts for advances or payments made for military or other federal purposes. This arrangement, by which taxes and other funds accruing to the Imperial Government in the districts of the several states become at once available for the discharge of the Government's liabilities, is said to be a very convenient one, obviating as it does to a large extent the transmission of funds to and from the seat of government and reducing correspondence to a minimum.

Each return of property and account of funds, together with the accompanying vouchers, is in the first instance examined in respect of its technical, administrative, and arithmetical correctness. The examination of the accounts of the general military treasury is made at the War Ministry; that of the corps disbursing officers and of the local disbursing officers (the commissions aforementioned) by the respective corps intendantur. The accounts of the artillery manufacturing establishments and of the "administration of fortifications" are examined by the respective artillery and engineer inspections as regards their technical correctness, besides being subjected to the administrative scrutiny of the intendantur of the corps district. The accounts having undergone this preliminary test, are submitted, together with a statement of the result of the latter, to the auditing department of the German Empire (*Rechnungshof des deutschen Reichs*), where they are reviewed and finally settled, and after being preserved for fifty years destroyed.

It is to be noted that the powers of the intendantur of the corps are very extended, and that for instance, the War Ministry exercises no immediate control over the settlement of the bulk of the accounts, which are transmitted direct to the auditing department. This independence of the provincial military authorities is in line with the avowed policy of the Government which aims above all things to guard against the centralization of military authority. Indeed, decentralization is the keynote of regulations relating to military administration as well as to command, and to this policy, pursued consistently for a long time past, is ascribed in a great measure the successes that have attended the German arms.

On principle, every disbursing office is administered by two equally responsible persons, designated respectively as rendant and controller. The former conducts the business, and the controller, as well as the subordinate personnel, are bound by his instructions, but should his acts violate law or regulations, the controller is not only permitted but required to enter his protest against such violation, and if necessary to bring it to the notice of superior authority. Where, as in cases of battalion commissions, the office consists of three members, the third member has the same rights and duties as the controller. The duties of the members of these commissions are divided as follows: The commander supervises the business and arranges for the safe reception (ordinarily by the paymaster and a detailed officer) of the moneys. The second member sees that all regulations touching disbursements and bookkeeping are closely followed by the paymaster, and the latter counts moneys that may be received and deposits it (in marked packages) in the treasure chest, makes the prescribed

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\* Disbursements on account of the Guard and 3d Corps (headquarters in Berlin) are made by the Central Military Treasury.

payments, conducts the correspondence, keeps the books, and prepares the requisitions and settlements (*Liquidationen und Abschlüsse*). His participation in combats in which the troops may be engaged is expressly interdicted. The treasure chest can not be opened unless all three members of the commission are present, but for the payment of small expenses the paymaster is furnished with a sum of money which must be exhibited or accounted for in the shape of receipts at the periodical, as well as on the occasions of the unexpected, inspections of the chest.

The War Minister determines the amount of the funds to be drawn from the Imperial Treasury from time to time by the general military disbursing office, which, as has been already stated, keeps regular accounts with corps disbursing offices. These offices do not as a rule receive cash, but depend for their resources upon the receipts, (taxes, etc.), of the Government subtreasuries of which they form a part. Other disbursing offices are supplied with funds, the remittances being termed either "current" or "iron" advances, (*laufende oder eiserne Vorschüsse*), the former depending upon the estimated but not positively known requirements vary in amount, while the amount of the latter is a sum definitely ascertained once for all, every expenditure from which is periodically made good. In other words, the advances known as "iron" are fixed, those termed "current" variable. The disbursing offices of the troops are supplied with "iron" advances for the payment of the command, said advances being so gauged that the payment of the offices for two months and of the men for one and two-thirds months will not exhaust them. The reason for this is that the officers are entitled to receive their salaries for a period of one month, and the men their pay for a period of ten days, *in advance*, and that the so-called liquidations (form inclosed) submitted at the beginning of every month for the preceding month are revised and the money due on them transferred in the course of the second month. Before the revision and transfer of the funds is accomplished, the officers' salaries for said month and the men's pay for two decades become due, for the discharge of which liabilities the means must be at hand. The troops do not require additional funds for contingencies, since money for the management of their economic affairs, including that needed for the clothing of the men, is always furnished in advance, so that the chest is not likely to be without the means of defraying even extraordinary expenses. All expenditures of a disbursing office, except those made by the troops through the commissions on account of their own subsistence and clothing, are accounted for in due form (*liquidirt und justificirt*) at regular intervals. After examination and revision of the accounts and vouchers, a warrant for the proper amount is drawn on the general military treasury or corps disbursing office.

MONTHLY REVISIONS (*Revisionen*).—At the end of every month the books of the disbursing offices are closed and the correctness of the balances verified upon the basis of the books and vouchers. This verification is made, in the case of the treasure chest of the troops, by the commissions themselves; in the case of the disbursing offices of the local administrations at the seat of the intendatur, by an official designated by the latter for the purpose, and in case of all other disbursing offices by the commandant of the garrison. A copy of the monthly settlement, exhibiting the condition of the funds under the various heads of the appropriation, is transmitted to the corps intendatur, which submits a summary of all such statements to the treasury division of the War Ministry, affording to the latter a comprehensive survey of, and keeping it fully informed as to, army disbursements.

QUARTERLY REVISIONS.—The troops, as well as those formations and institutions which have disbursing offices, are required to keep their journal and accounts in two sets of books, of which one shows the receipts and expenditures of the first and third, and the other those of the second and fourth quarters. On the first day of each quarter, immediately after the completion of the prescribed monthly settlement, the balances and advances are transferred

to the books set apart for said quarter. The books that have been closed, together with all vouchers which do not accompany "the clearing accounts" (*Liquidationen*), must be sent to the intendantur in the course of the first month. The latter examines the books and vouchers, and together with its certificate of examination returns them before the expiration of the quarter. At the time of the biennial economic muster (inspection of arms, equipments, clothing, etc., by the brigade commander and an intendant), all books must be in the hands of commissions.

UNEXPECTED REVISIONS.—In addition to the above-mentioned inspections, all disbursing offices (*Kassen*) are unexpectedly inspected once during the fiscal year (April 1 to March 31) by an official of the intendantur, for which purpose he is furnished, in case the revision of a battalion disbursing office is contemplated, with a confidential order on the commander, by the commanding general or division commander. The commander is bound to see that the inspection takes place as soon as the order has been presented to him. The inspector must satisfy himself not only of the actual receipt by the disbursing office of the moneys invoiced to it, and of the fact as well as of the propriety and legality of the reported expenditures, but he is also required to examine into those matters (relating to the clothing, etc.), which are made the subject of special inquiry by the mustering authorities. A record in duplicate is made of the proceedings of the inspection, in which all discovered irregularities are set forth and to which the members of the commission and the inspector affix their signatures. One copy of it is intended for the troops and must be submitted through the division, brigade, and regimental commanders; the other goes to the intendantur. Upon the conclusion of the revision the inspector personally calls upon the division commander, gouverneur, or commandant, if either such be on duty at the place, and makes a preliminary report to him of the result. A deputy of the intendantur also inspects a disbursing office when either the commander or paymaster has been relieved, but in such an event the unexpected revision may be omitted in the fiscal year during which the extraordinary inspection occurred.

MONEY ALLOWANCES (see pages 94-5).—The incumbent of every position provided for in the appropriation act (*Etatsmässige Stellen*) is entitled to the allowances specified therein for said position. Persons occupying military positions not so provided for (*Über-etatsmässige Stellen*) are paid (with the approval of the Emperor in each case) out of funds especially provided for the purpose.

The compensation to the individual for services to be rendered in the army is graduated both according to his grade and the position he occupies. It is termed "salary" (*Gehalt*) when the recipient is obliged to clothe, equip, and arm himself, and "pay" (*Löhnung*) when the State furnishes him his clothing, equipment, and arms. Officers and officials are salaried; men from the first sergeant downward are "paid."\* Salary and pay are delivered in advance, the former monthly, the latter on the 1st, 11th, and 21st of every month. The salary or pay pertaining to a grade can only be made over to those properly appointed or assigned to it, regard also being had to the maximum number provided for in the appropriation act.

A salary is attached to every position specially enumerated in the appropriation act, and is payable only to the definitively appointed incumbent thereof. Persons temporarily discharging the functions of the place retain their former income unless expressly designated for the purpose by the Emperor, when they receive an addition to the pay of their legitimate position. When a particular place is on principle connected with a certain grade, and the

\*The men are paid in squads by the first sergeant or other noncommissioned officer, the captain being held responsible for the correctness of the transaction. They give no receipt, but on conclusion of the payment the company is formed and the captain inquires whether all have received their just dues, when complaints are in order.

salary of the place and grade is the same (as in the case of the chief of a company), an officer of a lower grade who may be temporarily assigned to the place, receives the salary of his grade with all other emoluments of the place. Officers of the furloughed state, called in peace time to the colors for instruction, receive a per diem rate which is payable in advance at the place of instruction and for the term of the instruction period. The so-called monthly clearing accounts (*Geldverpflegungs Liquidationen*), on the strength of which the disbursing commissions are supplied with funds, are based on reports of allowances (*Verpflegungs Rapports*) in which the established and the actual strength of the last report is followed by the gain and loss in the several grades, and thus shows the number of days for which allowances are due in each grade, said number being the one accepted in the liquidation. For a better understanding of the system, attention is invited to the accompanying forms of the report and "clearing account," the former of which also contains information for the ascertainment of allowances in kind (bread and forage) of march allowances, etc.

Salary and pay continue in cases of sickness, whether a furlough is granted in connection with it or not, but if enlisted men are taken into hospital, their regular pay is retained to cover the cost of their maintenance, and a small allowance is made them, the amount of which is regulated by their grade. While inmates of the hospital they have no claim for pay or allowance on their battalion.

To officers on furlough salaries are continued for forty-five days; for a longer period a certain amount, determined by the day for each grade, is deducted. At the expiration of six months every money allowance ceases unless authorized by the Emperor. Furloughed men may be paid in full for ninety days; beyond that term the pay ceases.

The salary of mobilized officers, physicians, and officials is termed "field salary," and is authorized for the duration of the mobilization only. A "field salary" pertains to every field position mentioned in the appropriation acts, which the appointee may receive from the day the position becomes vacant; but for a number of such positions different salaries are provided for, depending upon the grades of the incumbents of them. In order to simplify the system of pay and subsistence, only those persons are provided for by the mobilized organizations who are on duty with their battalions or administrative departments. All others are dropped from the War Allowance Report (*Kriegs-Verpflegungs-Rapport*) and are taken up again on their return. Persons temporarily absent from the troops receive their allowances from the nearest military disbursing office. In order that such payments may be promptly made by the proper office, each officer, physician, official, and enlisted man is supplied with a book containing a statement of his authorized allowances and of all changes that have occurred therein. Troops and administrative organizations report persons not belonging to them paid as "attached," and the intendantur examining the "liquidation" notifies the fact of the payment to the one to whose jurisdiction the attached person belongs. Stragglers and others separated without orders from their troops are required to join other organizations, and provided for as attached. None but disbursing offices of troops can pay such individuals.

Salary or pay does not accrue during captivity; neither have officers, released as prisoners of war on their word of honor that they will not serve against the enemy during the continuance of the war, any claim to salaries; but under certain circumstances a special allowance can be made to them by direction of the Emperor.

The amount of the salary due to an officer is determined by the place he occupies or the command he exercises, by the maximum amount appropriated therefor by law, and by his grade and length of service.

**MAXIMUM RATES OF PAY.**—The following are the maximum annual rates, exclusive of allowances for quarters, fuel, and forage, that are payable under the appropriation act to incumbents of places and grades as specified on the following page:

*Officers.*

Commanding general, chief of the general staff of the army, inspector general foot artillery, chief of the engineer and pioneer corps .....	\$7, 140. 00
(of which \$2,856.00 is the salary pertaining to the grade of lieutenant-general or general, and \$4,284.00 that pertaining to the place).	
Inspector of field artillery .....	4, 284. 00
(of which \$2,856.00 is the salary pertaining to the grade of lieutenant-general, and \$1,428.00 that pertaining to the place).	
Division commander, cavalry inspector .....	3, 927. 00
(of which \$2, 856.00 is the salary pertaining to the grade of lieutenant-general, and \$1,071.00 that pertaining to the place).	
Foot artillery inspector .....	2, 356. 20
Brigade commander, inspector of rifles and sharpshooters .....	2, 356. 20
Regimental commander and field officer ranking as such .....	1, 856. 40
Battalion commander and field officer ranking as such, when serving with mounted or guard corps organization .....	1, 356. 60
Battalion commander and field officer ranking as such, when serving with foot (not guard) troops .....	1, 285. 20
Captain 1st class, when belonging to mounted or guard corps organization .....	928. 20
Captain 1st class, when belonging to foot (not guard) troops .....	856. 80
Captain 2d class, when belonging to mounted or guard corps organization .....	589. 76
Captain 2d class, when belonging to foot (not guard) troops .....	514. 08
First lieutenant, when belonging to mounted or guard corps organization .....	299. 88
First lieutenant, when belonging to foot (not guard) troops .....	257. 04
Second lieutenant, according to the arm to which attached .....	\$214. 20 to 282. 74

*Military Physicians.*

The general staff physician of the army .....	3, 213. 00
Physician-general (chief medical officer of army corps) .....	1, 856. 40
Superior staff physician ( <i>Oberstabsarzt</i> ) .....	1, 285. 20
Staff physician .....	514. 08
Assistant physician .....	257. 04

*Officials.*

Military intendant ( <i>Corps-Intendant</i> ) .....	1, 927. 80
Intendantur councilor .....	1, 285. 20
Intendantur assessor .....	714. 00
Chaplain-general of the army .....	2, 380. 00
Superior chaplain ( <i>Oberpfarrer</i> ) .....	1, 142. 40
Division or garrison chaplain .....	856. 00
Judge-advocate general ( <i>General Auditeur</i> ) .....	3, 260. 60
Assistant judge-advocate general ( <i>General Auditoriat-Rath</i> ) .....	1, 785. 00
Corps judge-advocate .....	1, 762. 00
Division or garrison judge-advocate .....	1, 213. 80
Corps veterinarian (one to each corps) .....	642. 60
Superior veterinarian (one to each cavalry and field artillery regiment) .....	571. 20
Veterinarian (from one to two to each cavalry and from two to three to each field artillery regiment, one to each train battalion) .....	333. 20
Paymaster .....	690. 20
Armorer .....	261. 80
Saddler .....	77. 11

*Enlisted Men.*

First sergeant .....	\$171.36 to 175.64
Vice first sergeant .....	132.80
Sword-knot ensign .....	77.11
Sergeant .....	107.10
Under officer (corporal) .....	77.11
Trumpeter (staff) .....	132.80
Trumpeter .....	51.40
Battalion trumpeter (sergeant) .....	102.81
Battalion trumpeter (under officer) .....	77.11
Vice corporal—band musician, reenlisted private .....	47.12
Private .....	\$29.98 to 38.55
Tradesman (private) .....	29.98
Hospital assistant, according to grade from .....	\$42.84 to 107.10

NOTE.—Officers of the active army and the gendarmerie, the sanitary officers, the paymasters, the corps and superior veterinarians are each entitled to a soldier as servant, to be supplied as a rule by the troops to which they are attached. Only such soldiers as are fully trained and have taken part in at least one autumnal maneuver are eligible for detail as servants. The servants of generals, staff, mounted, and detailed officers are excused from all military duty. Those of other officers and officials may be required by their captains to attend drill occasionally.

The following tables exhibit in detail the income of regimental officers, which forms the basis of the retired pay (pension) to which they are respectively entitled. In determining length of service under this head, participation in a campaign lasting not less than one month, or in a battle, is held to be equal to a year's peace service. In general it may be said that the established scale of equivalence of service in war to peace service is highly favorable to persons with a war record. Tables "A" and "B" not only afford specific information respecting retired pay (pension) rates, but also in regard to the average total income of officers and officials, including allowances for quarters, fuel, and light:

*A—Pension Rates for Regimental Officers.*

(a. Length of service. b. Amount of annual pension in dollars.)

SECOND LIEUTENANT.		FIRST LIEUTENANT.		CAPTAINS.				Battalion commanders.		Regimental commanders.	
				2d Class.		1st Class.					
WITH ANNUAL PENSIONABLE INCOME OF DOLLARS.											
463.3		506.2		854.8		1197.6		1554.8		2220.0	
<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>
10	115.9	10	126.7	10	213.8	10	299.5	10	388.8	10	555.0
11	123.6	11	135.0	15	285.0	17	439.3	23	725.7	25	1110.0
12	131.3	12	143.4	16	299.3	18	459.3	24	751.6	26	1147.1
13	139.0	13	151.8	17	313.6	19	479.0	25	777.3	27	1184.0
14	146.0	14	160.2	18	327.9	20	499.0	26	803.3	28	1221.1
15	154.4	15	168.6	19	342.2	21	519.0	27	829.2	29	1259.4
16	162.1	16	177.0	20	356.5	22	539.0	28	855.2	30	1295.0
17	170.0	17	185.4	21	370.8	23	559.0	29	881.1	31	1332.1
18	177.6	18	193.8	22	385.1	24	579.0	30	907.1	32	1369.0
19	185.2	19	202.2	23	399.4	25	598.8	31	932.8	33	1406.1
20	192.9	20	210.6	24	413.7	26	618.8	32	958.8	34	1443.0
21	200.6	21	219.0	25	428.0	27	638.8	33	984.7	35	1480.0
22	208.3	22	227.4	26	442.3	28	658.8	34	1010.7	36	1517.1
23	216.0	23	235.8	27	456.6	29	678.9	35	1036.6	37	1554.0
24	223.7	24	244.2	28	470.9	30	698.9	36	1063.5	38	1591.1
25	231.4	25	252.6	29	484.2	31	718.6	37	1088.3	39	1628.1
26	239.1	26	261.0	30	498.5	32	739.0	38	1114.2	40	1665.0

B—Pension Rates for Military and Civilian Officials of the Military Administration and of Auditors and Chaplains.

Years of service.	Intendants.		Intendantur.		Division, etc.		MAGAZINE ADMINISTRATION FUNCTIONARIES.				GARRISON AND HOSPITAL ADMINISTRATION FUNCTIONARIES.												
	Dolls.	Dolls.	Councillors.	Secretaries, etc.	Auditors.	Chaplains.	Inspectors of garrison.	Directors.	Provision masters.	Assistants.	Directors.	Senior inspectors.	Administration inspectors.	Inspectors.									
10	582.1	546.4	377.9	241.4	223.5	377.9	288.8	231.4	220.0	202.1	184.3	315.0	285.7	287.9	231.1	190.7	143.3	259.3	241.4	214.3	196.4	192.9	160.0
25	1163.5	1092.1	790.7	755.0	444.0	755.0	576.4	462.9	439.3	403.6	367.9	630.0	571.4	535.8	464.2	380.7	297.9	517.9	482.1	428.6	392.8	385.8	319.4
26	1262.8	1128.6	817.1	780.7	498.6	780.7	595.7	478.6	453.6	417.1	380.0	651.4	590.7	553.6	480.0	393.6	307.9	535.0	498.6	442.9	405.7	398.6	330.0
27	1241.4	1165.0	843.6	805.7	514.3	805.7	615.0	493.6	468.6	430.7	392.1	672.1	609.3	571.4	495.0	406.4	317.9	552.1	514.3	457.1	419.3	411.4	340.7
28	1280.0	1201.3	870.0	830.7	491.4	830.7	634.3	509.3	482.9	443.6	404.3	693.6	628.6	589.3	510.7	419.3	327.1	570.0	530.7	471.4	432.1	424.3	350.7
29	1319.3	1214.0	896.4	855.7	505.7	855.7	653.6	525.0	497.9	457.1	414.0	714.3	647.9	607.1	526.4	431.4	337.1	587.1	546.4	485.7	445.0	437.1	361.4
30	1357.8	1274.3	922.9	881.4	562.9	881.4	672.9	540.0	512.1	470.7	428.6	735.0	666.4	625.0	541.4	444.3	347.1	604.3	562.9	500.0	458.6	450.0	372.1
31	1396.4	1310.7	949.3	906.4	578.6	906.4	692.1	555.7	527.1	484.3	441.4	756.4	685.7	642.9	557.1	457.1	357.1	621.4	578.6	514.3	471.4	462.9	382.9
32	1435.7	1323.3	975.7	931.4	595.0	931.4	711.4	570.7	541.4	497.9	453.6	777.1	705.0	660.7	572.9	470.9	367.1	638.6	595.0	523.6	484.3	475.7	393.6
33	1471.9	1383.6	1002.1	956.4	610.7	956.4	730.7	586.4	556.4	510.7	465.7	798.6	723.6	678.6	587.9	482.9	377.1	655.7	610.7	542.9	497.9	488.6	404.3
34	1512.9	1374.8	1028.6	982.1	626.4	982.1	750.0	602.1	570.7	524.3	477.8	819.3	742.9	696.4	603.3	495.0	387.1	673.6	627.1	557.1	510.7	501.4	415.0
35	1551.4	1455.9	1054.3	1007.1	642.9	1007.1	769.0	617.1	585.7	537.9	490.0	840.0	762.1	714.3	619.3	507.9	397.1	690.7	642.9	571.4	523.6	514.3	425.7
36	1590.7	1492.9	1079.3	1032.1	658.6	1032.1	787.9	633.8	600.0	551.4	502.9	861.4	780.7	732.1	634.3	520.7	406.4	707.9	659.3	585.7	537.1	527.1	435.7
37	1629.3	1529.3	1107.1	1057.1	675.0	1057.1	807.1	647.9	615.0	565.0	515.0	882.1	800.0	750.0	642.9	533.6	416.4	725.0	675.0	600.0	550.0	540.0	446.4
38	1668.3	1565.7	1133.6	1082.9	690.7	1082.9	826.4	663.6	629.3	577.9	527.1	903.6	819.3	767.9	665.7	545.7	426.4	742.1	691.4	614.3	562.9	552.9	457.1
39	1707.1	1602.1	1160.0	1107.9	707.1	1107.9	845.7	679.3	644.3	591.4	539.3	924.3	837.9	785.7	680.7	558.6	436.4	759.3	707.1	628.6	576.4	565.7	467.9
40	1745.7	1638.5	1182.9	1132.9	722.9	1132.9	865.0	694.3	658.6	605.0	551.4	945.0	857.1	803.6	696.4	571.4	446.4	776.4	722.9	642.9	589.3	578.6	478.6

WITH AN ANNUAL PENSIONABLE TOTAL INCOME OF DOLLARS.

WITH AN ANNUAL PENSIONABLE TOTAL INCOME OF DOLLARS.

WITH AN ANNUAL SALARY OF DOLLARS.

## C—Monthly Pension Rates for Enlisted Men.

	1st Class.	2d Class.	3rd Class.	4th Class.	5th Class.
Orderly sergeant -----	\$10.00	\$7.86	\$6.43	\$5.00	\$3.57
Sergeant -----	8.57	6.43	5.90	3.57	2.86
Corporal -----	7.86	5.71	4.29	2.86	2.14
Private -----	7.14	5.00	3.57	2.14	1.43

Pension is allowed to enlisted men without the submission of evidence of disability, after periods of service with the colors, as follows: After thirty-six years' service, according to class 1; after thirty years' service, according to class 2; after twenty-four years' service, according to class 3; after eighteen years' service, according to class 4.

Pensions are also payable as follows:

To invalid soldiers after twenty-five years' service, or through some incident of the service have become not only wholly disabled, but have to be taken care of by others, a 1st class pension.

To invalid soldiers who after twenty years' service are wholly unable to earn their living, a 2d class pension.

To invalid soldiers who after fifteen years' service are wholly unable to earn their living, a 3d class pension.

To invalid soldiers who after twelve years' service are unable to earn their living, a 4th class pension.

To invalid soldiers who by reason of any incident of the service are wholly, largely, or partly disabled from earning a living, a 2d class, a 3d class, or a 4th class pension respectively.

To a 5th class pension are entitled (1) invalid soldiers who after eight years' service, or in consequence of an external injury received in the line of duty, have become unfit for every kind of military service, and (2) partly invalided (*Halb-Invaliden*) soldiers who after, twelve years' service, or from an external injury received in the line of duty, have become unfit for field service.

Invalid noncommissioned officers are entitled, beginning with the eighteenth year of service with the colors, to an increase in pension of 36 cents per month.

PAY OF CAPTAINS OF THE 1ST AND 2D CLASSES.—The question whether captains are entitled to salary of the 1st or 2d class is determined by their length of service in their regiment; in the cases of foot artillery officers and train, in their arm.

EXTRA COMPENSATION AND ALLOWANCES.—For the performance of functions outside of the regular duty of the grades held by them, officers, officials, and men receive an extra compensation. The functions referred to are such as fall to the lot of regimental adjutants, officers detailed to conduct the proceedings of the inferior military courts, assistant physicians assigned to duty with the physician general of corps, paymasters attached to clothing commissions, clerks, storekeepers, quartermasters (sergeants), foragemasters, drivers, etc. The extra compensation is allowed for the actual performance of the respective functions, so that, for example, the officer acting for the regimental adjutant during the latter's sickness or temporary absence, and not the adjutant himself, would receive it. Each of the 120 best shots among the privates of the several guard, sharpshooter, and rifle battalions receives a regular addition to his pay, which is continued during mobilization; and all troops receive every year sums of money for distribution among the best shots—noncommissioned officers and privates.

An additional allowance, graduated according to the grade held by them, is also granted on account of and during detached service to regimental officers, physicians, and the higher officials as compensation for the extra outlay occasioned by the leaving of and absence from the garrisons. A duty which is known from the start will last six months or longer is not regarded as detached service in this sense.

Officers detached for duty with the General Staff, the engineer committee, the artillery manufacturing establishments, the landwehr exercises, or for the purpose of perfecting their own training, receive special detached service allowances.

Besides the above extra allowances, one "pfennig" (one-quarter cent) per day is paid in addition to the regular rate of pay to enlisted men stationed in Berlin, Potsdam, Charlottenburg, and Burg Hohenzollern; also a monthly sum on account of medals of honor granted for bravery, which varies in amount according to the particular medal received. The latter gratuity is payable for life, unless declared forfeited for crime by a court of justice.

All mobilized officers, physicians, and officials are entitled, besides their salary and any supplementary salary on account of a special position occupied by them, to what is termed a field gratuity (*Feld-Zulage*). It is distinguished from salary in that it is calculated by the day and paid at the end of the month instead of in advance. It pertains either to the grade or the place. For every established field position a field position gratuity (*Stellen Feld-Zulage*) is provided, which is paid to the person who actually performs the functions, regardless of his grade, including a noncommissioned officer acting as officer. The field gratuity attached to a grade is payable to mobilized officers not drawing a field position gratuity. The latter ceases in cases when no salary is paid.

TABLE MONEY.—An amount fixed in the appropriation act (generally \$2.14 per month) is allowed to those subalterns of each regiment and independent battalion who join in a mess at which the principal meal is taken, which amount is expended for the benefit of such mess. The War Academy, the artillery firing school, and several other military institutes are also each furnished with a fund for this purpose.

EQUIPMENT MONEY.—Officers, physicians, and veterinarians of the "furloughed state" receive in the years in which they are called to the colors what is called "equipment money," as compensation for procuring and maintaining their clothing and equipment.

WAR EQUIPMENT MONEY.—For the supplementation and repair of all articles intended for their personal use, officers, physicians, and higher officials, as well as veterinarians, armorers, and saddlers of the active army, receive upon being mobilized a sum graduated according to their position, known as mobilization money. If promoted while mobilized, they are entitled to the difference between the amount received and the amount provided for the higher position. In like manner the amount of \$26 is paid as "horse equipment money," for every additional horse each officer, physician, and official is required to keep on taking the field. Officers and officials in whose prescribed war equipment wagons are comprised, receive for the procurement of each such wagon \$150, if it be a 4-horse, and \$112 if a 2-horse vehicle. Officers, physicians, and superior functionaries attached to the higher commands, and the field administrative departments, have train soldiers assigned to them to attend to their persons and to care for their horses. For clothing these soldiers receive a first allowance of \$26, and the further sum of \$19 at intervals of six months to supply deficiencies. Extra horses which officers and others of officers' rank are required to keep during war are, as a rule, furnished them by the State and remain Government property. For every such horse which they may supply themselves, the Government allows them \$112. All articles and horses bought out of war equipment moneys become the property of the recipient.

RELIEF FUNDS (*Unterstützungsfonds*).—In cases of sickness incidental to the service, which render bathing or expensive cures necessary, loss from theft or fire entailing extraordinary

outlays not covered by the authorized allowances, loss of private horses kept for official purposes, alteration in the equipment of the regiment or battalion, or of involuntary transfer, officers, physicians, and officials are granted gratuities or loans without interest, from a special fund provided for the purpose.

CHILDRENS' TUITION (SCHOOL MONEY).—Children of noncommissioned officers, veterinarians, and subveterinarians are entitled from their 5th to their 15th year, while their fathers remain in active service and have no income outside of their pay, to tuition free of charge in an elementary school. A school board is formed for every garrison, consisting of one or two officers and the chaplain or his civilian representative, whose duty it is to see that the children mentioned are received in such a school, and to pay the school money out of specially appropriated funds, to be drawn through the intendatur.

VARIOUS FUNDS (*Selbstbewirtschaftungsfonds*) are handed over to the troops and administered by themselves. They are lump sums severally set apart for and intended to cover all expenses of the below specified objects:

(1) *Fund for repairing clothing and equipment.*—Formerly the cost of repairing the clothing, equipments, field equipage, etc., was defrayed out of savings that accrued from pay and subsistence funds in consequence of the absence of soldiers on furlough, etc. Since 1808 the application of public money for any other purpose than that provided by law has been interdicted, and an allowance to meet expenses such as those mentioned has been authorized per head and arm, which is paid monthly to each battalion for its prescribed strength. A change in the amount of this allowance is made only when the established strength is very considerably increased or reduced. From the sum received on this account, the commander transfers a part, usually five-sixths, to the companies (squadrons, batteries), reserving the remainder for general purposes or for particular companies in special cases.

(2) *Fund for the repair of arms.*—In like manner a fund is placed in possession of and disbursed by each independent organization for the repair and maintenance of small arms and guns.

(3) *Fund for the repair of material used for target practice, etc.*—A fund is also set apart for keeping in condition the material used by the troops of all arms for the various exercises (*Übungsmaterial*). Included in such material is that used in connection with target practice, apparatus for fencing, gymnastics and swimming, the implements required for the cavalry exercises in demolishing railways, etc.

(4) *Office allowances.*—The commanding general, the inspector generals of foot artillery, and of the engineer and pioneer corps, and the "Gouverneur" of Berlin are expected to provide the requisite office furniture, stationery, etc., out of the supplementary service or field allowances attaching to their respective positions. All other headquarters, as well as administrative authorities (*Verwaltungsbehörden*), receive specified sums from which such articles are bought. No accounts are required of commanding officers of the amount handed over to them for this purpose, and while they may dispose of savings according to their own judgment, they are personally liable for expenditures in excess of it. Books required for the administration of special funds, such as those allowed for the repair of arms, to cover expense arising from target practice, etc., are not chargeable to the office allowances, but provided for out of such funds. The administrative authorities render an account of moneys received for office material. Company, battery, and squadron commanders are allowed \$2.25 per month for stationery of which they need not render any account.

(5) *Horseshoe and horse medicine money.*—The shoeing of horses and the requisite medicines for the treatment of sick horses are paid for out of a special fund, the amount of which, determined according to a rate fixed for each saddle, wheel, or lead horse, is handed over to the troops monthly in a lump sum. The fund is administered in the same manner

as the one mentioned under (1); but the supply of horseshoes and nails required in case of mobilization (four set for every horse of the established war strength) must also be procured from it.

(6) *School and exercise money.*—As far back as 1811, the regulations required that non-commissioned officers and men should be taught to read and write, and that such as were ignorant of German should be taught that language, the instruction to be given during the winter months by suitable officers and noncommissioned officers. Inasmuch as men deficient in elementary instruction are no longer eligible for the noncommissioned grades, and men rarely join the colors nowadays who are wholly illiterate, the character of the enlisted men's instruction has been essentially modified, and promising subjects among them are now prepared for particular positions, such as those of first sergeant and quartermaster (sergeants); also for positions in the civil service, to which, it will be remembered, meritorious noncommissioned officers of twelve years' service can lay claim. From the funds set apart for this purpose under the chapter of "Military education and training system," a certain sum is annually placed at the disposal of the commanding generals as well as of the general inspections of foot artillery and of engineers, and by them distributed among the several organizations of their commands. Commanding generals also receive and distribute as above, lump sums (*Bausch-Summen*) to defray the cost of implements and materials used in connection with the instruction of infantry in field engineering.

(7) *Artillery target practice money.*—The expenses incurred by such practice are payable out of the appropriation for "The system of artillery and arms." From the fund for the procurement of ammunition, etc., comprised therein, the general inspection of foot artillery and the inspection of field artillery receive each an annual sum, all but a small portion of which (reserved for contingencies and for special practice) is distributed among the troops and administered by themselves. Artillery practice ranges are established for the practice firing of the artillery of one or two army corps. The ammunition and the material required therefor is issued from the artillery depots. A committee of officers is formed for the administration of each range, which is under the control of the commander of the field artillery brigade of the corps within whose district the range is situated. The committee receives a part of the practice money which is deposited (as it has no safe of its own) in the treasure chest of one of the field artillery battalions.



## CHAPTER XI.

### SUBSISTENCE AND FORAGE.

GENERAL PRINCIPLES.—The following general principles govern the supply of subsistence to men and of forage to horses: Greater physical exertion necessitates an ampler provisioning of man and horse. Portions and rations—the terms applied to the former and latter respectively—are therefore distinguished as peace, march, and field portions and rations. The first are authorized in garrisons and cantonments; the second (also called the great victual portion and ration) during the autumnal maneuvers and on the march; and the third in the field. The portions and rations of besieged troops and their animals are determined by the *gouverneur* or commandant according to the work required of them, the supplies on hand, etc.

The subsistence of troops may be commuted (“self subsistence”), or be supplied either by the municipal authorities of the place in which they are quartered or from magazines. The “self subsistence” may be effected by the individual persons entitled to subsistence or by the battalions (companies, etc.,) for the persons belonging to them. Forage, even for private horses, is only exceptionally procured by the individuals in whose service they are. On the other hand, the procurement of the *peace* portion (except bread) devolves on principle upon the troops themselves; the cost is defrayed out of their salary or pay, including special increases of these granted with a view of improving or adding to said portion. If the march portion is procured by the troops themselves, the Government allows them the same amount it would have to expend on account of it if supplied by the local authorities or the magazine administrations. Only when the troops are on the march are the people in peace time called upon to provide them with shelter, subsistence, and, under circumstances, with forage. For the subsistence, they are at once remunerated by the troops themselves, according to a rate based upon the ascertained November market price in four places situated in as many different sections of the Empire,\*  $3\frac{3}{4}$  cents per man is allowed for bread per day. The soldier having to provide for this ordinary† subsistence during peace out of his pay, only the cost of the bread and of an improvement in his table fare (*erhöhte Verpflegung*) is made good to him. The part of his pay set apart for his *ordinary* subsistence is fixed at  $3\frac{1}{4}$  cents per day, and is actually deducted on that account when he is supplied in kind, whether by the battalion, the person upon whom he is billeted (*Quartiergeber*), or the magazines. Whatever may be allowed the town or village authorities in excess of the  $3\frac{3}{4}$  cents bread money and the  $3\frac{1}{4}$  cents above mentioned, that is to say, what may be expended for his subsistence in excess of 7 cents per day is paid for by the Government.

Officers, physicians, and the higher officials are in peace always required to subsist themselves. They are entitled, however, if they wish it, to have their meals furnished them by the persons upon whom they are billeted whenever the men are so supplied, in which case they pay for a “suitable entertainment” double the amount allowed for the latter’s subsistence. If they are willing to put up with the soldier’s plain fare they pay only the remuneration allowed therefor.

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\* Königsburg, Berlin, Munich, and Mannheim.

† The meaning of these terms will be made clear further on.

Troops providing for their own subsistence while traveling by rail for from eight to fifteen hours receive an extra allowance of 6 cents per head. The allowance is doubled when the trip occupies from fifteen to thirty-one hours, and further increased at the rate of 6 cents for every additional eight hours of the journey.

**SUBSISTENCE OF TROOPS IN THE ENEMY'S COUNTRY.**—In the enemy's country the troops are on principle to be supplied by the inhabitants, and supplies in home magazine are to be drawn upon only in case of urgent necessity. As a matter of fact, however, this principle can not be advantageously applied except in districts where German authority is firmly established and where the administrative machinery is under its control. Within the territorial limits of and during actual operations attempts to depend for shelter and food upon requisitions are likely to be unsuccessful. The troops can only exceptionally, and while operations are at a standstill, be quartered in villages or towns, and even then such quarters are not likely to be restful. In any event the accommodations will be found to be scant. Even in well to do and not evil disposed communities, not more than eight or nine men can be assigned to a family, nor more than a battalion to 500-600 inhabitants. Should the command have to be placed in cantonments ready for battle, the subsistence of troops by the inhabitants will be found to be impossible, and the magazine supplies will have to be mainly if not wholly relied upon.

In case the conditions are such that a constant preparation for combat and a constant concentration of the corps do not appear to be any longer necessary, and the conduct of the war has assumed somewhat the character of mere occupation of hostile territory, considerations of salubrity and comfort enter into the problem of locating and provisioning the troops. Under such circumstances, extended (*weittläufige*) cantonments are so established that a battalion or cavalry regiment can depend for its sustenance on 4,000-5,000 and a battery on 600-700 inhabitants. The ability of a given district to support troops cannot, however, be gauged by the number of its inhabitants alone, since such considerations as to whether the population is urban or rural, whether engaged in commercial, manufacturing, or agricultural pursuits, whether the crops are harvested or unharvested, etc., have a highly important bearing on the question. Even under favorable circumstances the maintenance of troops in this manner cannot be kept up for any length of time, for the supplies will soon be exhausted and coin or currency disappear. Excesses of all kinds, relaxation of discipline, the flight or uprising of the inhabitants, and withal, deficient provision for the troops are inevitable consequences of making greater demands on the communities of a hostile territory than they are able to supply without ruining themselves. On the whole, it is recommended not to count upon the subsistence of troops by the private families in whose houses they are quartered, except for very brief periods, and to let the magazine administration provide for their supply. Whether the magazines can be filled wholly or in part by requisitions or by purchase from money contributions depends upon the war situation, the condition of the occupied country, political considerations, and other circumstances.

**SUPPLY OF TROOPS FROM THE MAGAZINES.**—Supplies are furnished through the magazines in all cases when there is neither "self subsistence" nor subsistence by the persons in whose houses the troops happen to be quartered. In such cases the supplies are either delivered from the magazines by the officials in charge, or they are forwarded by contractors under written agreement with the intendantur. As has been already stated, the magazine issues are, as a rule, limited in peace time to bread and forage. It is only when troops are concentrated or when large bodies of them are in transit by rail that the smaller components of the portion, as well as straw for bedding, and fuel for cooking and heating purposes are furnished by the magazines. On the other hand, in the field and besieged fortresses, when all officers, physicians, officials, and men are entitled to a complete portion daily, the supplying of it in

full by the magazines is the rule, and every other mode of supply the exception. Commutation on account of "self subsistence" is admissible in the enemy's country only when the funds therefor can be raised by forced contributions.

**THE RATION (*Portion*).**—The *Portion* (the daily allowance of food for one man) consists of a bread portion and a so-called "victual portion," comprising meat, vegetables, salt, coffee, and at times whiskey. It has been already stated that as regards quantity, three portions are distinguished, to wit: The small victual portion issued in garrison, the large victual portion supplied on the march, and the field portion.

The small portion consists of 1 lb. 10.4 ozs. of bread; 5.2 ozs. of meat; 3.04 ozs. of rice, or 4.1 ozs. of grits, or 8 ozs. of beans or pease, or 3 lbs. 4.8 ozs. of potatoes, and 0.88 ozs. of salt.

The large victual portion consists of 2 lbs. 1.6 ozs. of bread; 8.8 ozs. of meat; 4.1 ozs. of rice, or 5.2 ozs. of grits, or 10.4 ozs. of beans or pease, or 4 lbs. 6.4 ozs. of potatoes; 0.88 oz. of salt, and 0.52 oz. of roasted coffee.

The field portion consists of: 1 lb. 10.4 ozs. of bread, or 1 lb. 1.6 ozs. of hard bread; 13.1 ozs. of fresh or salt meat, or 8.8 ozs. of smoked beef or mutton, or 5.9 ozs. of pork; 4.3 ozs. of rice or grits, or 8.8 ozs. of pease or beans or flour, or 3 lbs. 4.8 ozs. of potatoes; 0.88 oz. of salt; 0.52 oz. of roasted or 1.05 ozs. of green coffee.

If conserves are used 7.04 ozs. of canned meat and 8.8 ozs. of canned vegetables; in all, 15.8 ozs. are reckoned as a daily field portion, exclusive of coffee and bread. In addition,  $\frac{1}{8}$  of a gill of whiskey may be issued per man per day, upon the order of commanding general.

The bread is furnished, as a rule, in kind. It can be commuted only in exceptional cases upon the order of the commanding general, though detached soldiers, to whom it would be difficult to supply it, receive the prescribed money equivalent without special authorization. The reason of this regulation is that the men shall be well nourished, and not be tempted to eat less nutritious food which they may find more palatable. For the same reason they are prohibited from selling the bread furnished them, and obliged to participate in the regular mess, or, where in exceptional cases such a mess cannot be established, to conform to whatever rule may be adopted by their superiors in regard to their meals.

The bread is baked either in the garrison bakeries or furnished under contract entered into by the intendantur with persons who must be bakers and not "middlemen." It is produced in 6-lb. (in the field in 3-lb.) loaves, out of pure rye flour mixed with 15 per cent of bran. In parts of the country where a whiter bread is generally eaten, the soldiers' bread is baked out of a compound containing  $\frac{1}{4}$  wheat and  $\frac{3}{4}$  rye flour, the latter mixed with 12 per cent of bran.

In the field hard bread in half portion cakes, weighing 8.93 ounces, may be issued in lieu of fresh bread. A quantity of it is constantly kept on hand for the first supply of the field army and the provisioning of the fortresses, from which a one day's issue is annually made to the troops to prevent its getting stale. In garrison and in cantonments not connected with the autumnal maneuvers, the small victual portion, except the bread, is supposed to be bought out of the mens' pay. Inasmuch, however, as the regulations contemplate that a soldier shall expend only  $3\frac{1}{4}$  cents of his daily pay on his noon meal, and that he requires the remainder for other purposes, the cost of the component parts in every garrison town is determined once a quarter by the average price of them during the preceding three months, and the excess of the price over  $3\frac{1}{4}$  cents is paid monthly to the mess committee to be hereafter referred to by the Government for each man from the first sergeant downward. The Government allows in addition  $\frac{3}{4}$  of a cent per head for the procurement of a breakfast portion. Noncommissioned officers receive one and one-half of both of these extra allowances. A gratuity of  $\frac{3}{4}$  of a cent per day for each man is allowed in the event of a cholera epidemic

in a town in which troops are garrisoned for the improvement of their fare. The money value of the peace portion is therefore made up of the following items:

Bread .....	3¾ cents.
Other parts of the portion .....	3¾ cents.
Estimated average additional amount paid by the Government, being the excess of the market price over the 3¾ cents.....	4 cents.
Breakfast.....	¾ cent.
<b>Total .....</b>	<b>11¾ cents.</b>
The average cost of the ration in the United States is.....	20 cents.

To insure to the soldiers a nutritious and sufficient dinner and breakfast (only bread is provided for supper, which is supplemented with a glass of beer purchased at the canteen—a beneficent and highly valued institution, managed very much as our exchange)—a mess is instituted, as a rule, for each battalion, in which all the unmarried enlisted members are compelled to take part. Into the mess fund are paid, besides the proceeds from the sale of bones and offal, the extra allowances above mentioned and the 3¾ cents that are deducted per head per day from the pay of each of the participants. Kitchens and pantries are provided in the barracks and furnished with the necessary ranges and utensils, also separate mess rooms for noncommissioned officers and men, which may be used for purposes of recreation, assembly, or instruction at other than meal times. The meals are prepared under the supervision of a noncommissioned officer by cooks detailed from the companies.

The mess fund is administered, under the direction of the commanding officer, by a committee of officers, noncommissioned officers, vice corporals or privates. The enlisted men selected for this committee must be participants in the mess. The fund is the property of the men and must be expended for their benefit. Savings effected by good management or favorable conditions are usually applied to the purchase of extra supplies for a fine dinner on the Emperor's birthday, or on other special occasions. The mess fund is deposited in the battalion treasure chest to the credit of the mess committee, who render an itemized account of the receipts and expenditures, which is examined and settled by the mustering commission at the biennial musters.

**OFFICERS' MESSES.**—In order to insure to the unmarried lieutenants a suitable dinner or principal meal, and with a view of facilitating and promoting social intercourse and good fellowship among the officers, battalion mess rooms are established for the officers of each battalion. Other assembly rooms are connected with these mess rooms and the institution is known as the officers's *Kasino*. In some of the larger garrisons the officers of all the regiments have a common mess, separate assembly rooms being set apart for the officers of each regiment. The requisite furniture such as tables, chairs, sideboards, linen chests, kitchen ranges and utensils are procured and maintained on government account by the "garrison administration." The table service, including china, silver, etc., must be provided by the officers themselves, though a gratuity of \$150 per battalion or cavalry regiment towards the purchase of a *first* outfit is usually allowed them by the War Ministry. Both the classes of furniture mentioned being wholly or in part public property, are inspected on the occasions of the biennial musters. Only the third group of the expenses incidental to the maintenance of the mess, the wages of the stewards and cooks, the purchase of provisions, wines and other liquors, is borne exclusively by the officers, and not, therefore, subject to administrative control, although even here a disciplinary supervision by superiors is not excluded.

**SUPPLY OF FORAGE.**—The forage ration, constituting the daily allowance of feed for one horse, is on the one hand distinguished, according to the nature of the service required of

the horse, as the "garrison," "march," and "field" ration, and on the other, according to the breed of horse for which it is intended, as the heavy, light cavalry of the guard, middle and light ration. The first is allowed to the horses of the generals, General Staff, adjutantur, intendatur, officers on duty at the War Ministry, cuirassier and uhlan regiments, riding institute, artillery of the guard, regimental and artillery battalion commanders, artillery and train (such as are used for draft purposes), and in the field of all cavalry and artillery; the second to the horses of the light cavalry of the guard; the third to the horses of the hussars and dragoons of the guard; and the fourth to the horses of all other troops, officers, physicians, and officials. The authorized allowance is accordingly fixed as follows:

RATIONS.	GARRISON.			MARCH.			FIELD.		
	Oats—lbs.	Hay—lbs.	Straw—lbs.	Oats—lbs.	Hay—lbs.	Straw—lbs.	Oats—lbs.	Hay—lbs.	Straw—lbs.
Heavy -----	11·16	5·58	7·81	12·27	3·34	3·9	12·61	3·34	3·9
Light cavalry (guard) --	10·6	5·58	7·81	11·27	3·34	3·9	12·61	3·34	3·9
Middle -----	10·37	5·58	7·81	11·5	3·34	3·9	12·61	3·34	3·9
Light -----	9·48	5·58	7·81	10·6	3·34	3·9	11·16	3·34	3·9

Larger allowances than those above enumerated are authorized in certain strictly defined cases. Thus, on railway journeys of not less than eight hours' duration, the hay ration is increased by 6 lbs 11 ozs. and an increase is also allowed for the horse of cuirassier regiments and the draft horses of horse batteries at the time of the great maneuvers.

The number and kind of the rations to which each officer, official, and physician is entitled depends upon his command or position. Only such of the active general and field officers, as well as cavalry captains and lieutenants, as do not occupy a place in the regular establishments (*Etatsmässige Stelle*), such *e. g.*, as the officers *à la suite* of the army and officers attached (*aggregirt*) as supernumeraries to regiments, receive rations according to their grade.

The rations constitute a personal allowance of the officer entitled to them, and their issue to him is continued during a furlough, detachment, etc., with the understanding that he must furnish the officer acting in his stead the means of mounting himself if he be not already mounted. The authorized horses of an officer may be foraged for two months after his decease or retirement. A money equivalent may be paid to an officer for the rations of such number of his authorized horses as are not needed and kept by him.

**SUBSISTING TROOPS AND FORAGING ANIMALS IN WAR.**—The placing of subsistence stores in the right place at the right time is the chief difficulty met with in provisioning an army in the field. This difficulty will be greater or less, depending on the bulk and the perishableness of the particular components of the portion and ration. The requisite conditions to be considered in their selection—nutritiousness, imperviousness to decay, and variety—are the more difficult of fulfillment, since both men and horses not only feel the need of nourishing the body but the filling of the stomach, a condition directly antagonistic to that of the least volume. To satisfy him, the man wants fresh bread and potatoes, the horse hay and chopped feed; but it is just these articles which, in proportion to their nutritive value have the greatest bulk and weight and are most liable to decay.

A mobilized army corps of the prescribed strength, without a division of cavalry, requires 36,934 portions and 9,406 heavy and 1,279 light rations; for cavalry divisions of three brigades of two regiments and two horse batteries, 5,055 portions, 5,144 heavy and 93 light rations are needed. Computed upon this basis, the weight of different articles of food and forage required for one day is as follows:

	ARMY CORPS.		CAVALRY DIVISION.	
	<i>Kilograms.</i>	<i>Pounds.</i>	<i>Kilograms.</i>	<i>Pounds.</i>
Fresh bread.....	27,700	61067.42	3,791	8357.6386
Hard bread.....	18,467	40712.3482	2,527	5571.0241
Rice, grits.....	4,616	10176.4336	631	1391.1026
Pease, beans, or flour....	9,233	20355.0718	1,263	2784.4089
Potatoes.....	55,401	122137.0446	7,582	16715.2772
Salt.....	923	2034.8458	126	277.7796
Coffee (roasted).....	923	2034.8458	126	277.7796
Coffee (green).....	1,108	2442.6968	151	332.8946
Canned vegetables.....	9,233	20355.0718	1,263	2784.4098
Canned meat.....	7,386	16233.1756	1,011	2228.8506
Pork.....	6,278	13840.4788	859	1893.7514
Smoked meat.....	9,233	20355.0718	1,263	2784.4098
Salt or fresh meat.....	13,850	30533.71	1,895	4177.7170
Oats.....	59,538	131257.4748	29,528	65097.4288
Hay.....	16,027	35333.1242	7,855	17317.1330
Straw.....	18,698	41221.6108	9,164	20202.9544

A portion consisting of fresh or salt meat, fresh bread and potatoes, together with salt and coffee, would weigh 6 lbs. and be very bulky; whereas, a portion composed of pork, hard bread, and rice would combine with a minimum weight (1 lb. 14 ozs., including also salt and coffee) the least bulk. The average weight of a portion so varied as to comprise fresh bread one day and hard bread the other, fresh meat and rice for two days, smoked meat, pease and beans for a third, and pork and flour for a fourth day, would amount to 2 lbs. 9 ozs. A portion of canned meat and vegetables with coffee and hard bread weighs 2 lbs. 3 ozs.; when substituting fresh for the hard bread, the weight would be 2 lbs. 11 ozs.

The above proportional weights indicate that, apart from their liability to spoil soon when packed, potatoes can not long be carried in wagons. Neither can straw be so carried, not only on account of its weight, but also because of the large space it occupies. These two articles are not therefore to be issued except when obtainable at the place where they are to be used. On the other hand experience has shown that hay can not always be got while the army is in motion, and that a limited amount of baled hay must be brought along.

In the long run, fresh bread is the article of consumption which, while the most difficult to supply, is also the most difficult to get on without. It requires much transportation, keeps only a short time, and suffers easily from pressure or dampness. All attempts to prevent the formation of mold by admixtures have proved futile. The field bakery columns can not supply a sufficient quantity so long as the army is moving, and the supply of fresh bread will probably always be more or less deficient, except during pauses in active operations. The hard bread, owing to its lasting and nutritive qualities, concentrated form and small weight, would be a most convenient substitute were it not for the dislike the men conceive for it after living on it for any length of time. Except for use in emergencies and during the first two or three weeks after mobilization, it has been found expedient therefore to issue flour to the troops, to be baked by them or by bakers among them into bread in the ovens of the country, or with the best means available.

## CHAPTER XII.

### CLOTHING, EQUIPMENT, ARMS, AND AMMUNITION.

GENERAL REMARKS AND PRINCIPLES.—As late as the Thirty Years' War, (1618-48), the individual soldier had to provide his own clothing, equipment, arms, and mount. The arms were as a rule furnished by the Government, but the price of them was deducted from the soldier's pay. When an organization was disbanded, the still serviceable small arms in the hands of the men were generally purchased back and stored in depots for future use. When standing armies were introduced and voluntary enlistments gave place to conscription, it became necessary to supply all except the officers with these things and to correspondingly diminish the pay of the rank and file. The proprietary right in them however passed first, not to the State, but to the chiefs of companies, and it was not until one hundred and fifty years later (after the peace of Tilsit) that the State became the owner of the clothing, equipment, and hand weapons in possession of the troops. At present, arms and mounts are furnished in kind by the State; the procurement and maintenance of the clothing and equipment, on the other hand, is the business of the troops, who conduct it, however, on behalf of and from funds furnished by the State. Clothing is a term applied to all articles which are only distinguishable from those worn in ordinary life by their cut and color, while those things which the military calling renders necessary are designated as equipment. The distinction between the two is, however, in some respects an arbitrary one, and for the removal of any doubt as to whether an article belongs to the one or the other, reference must be had to the official enumeration of the component parts of each. Both the clothing and equipment are made up of a greater number of articles in the German than in our service, among the former being, for instance, no less than three kinds of trousers for the foot soldier (including one made of linen for summer wear) and five kinds for the mounted soldier. The equipment embraces a considerable variety of field cooking utensils, among them a cooking apparatus for a group of soldiers, carried on the march by one of them; also rice, salt, and coffee bags, coffee mills, medicine and bandage bags, hymn books, etc.

The clothing of entire regiments in uniform is comparatively recent, and was unknown before the second half of the sixteenth century. The origin of it is traceable to the custom of sovereigns in uniforming their bodyguards, and as far back as 1620 it is recorded, though as something very extraordinary, that the Elector George William, of Brandenburg, had clothed his entire bodyguard in blue. After uniformity in military dress had become customary, the instructions in regard to it originated with the chiefs of regiments, who frequently caused the coat of arms of their families to be embroidered in the cap and hat ornaments, as well as in the colors. When after the peace of Tilsit the army was reorganized and the business of managing the clothing of the troops was transferred from the regimental commanders to the Government, explicit instructions were issued touching the material, color, and facings of every article of clothing and equipment.

To establish uniformity in dress and accouterments, the War Ministry causes a pattern of every article of clothing and equipment to be prepared and transmitted to the several corps headquarters, from which it is passed around to the different regiments for whose guidance it is intended. In the workshops of each of these the pattern is copied, that is, a

garment or piece of equipment is made which corresponds closely to it in material, color, and cut. This copy, when approved at corps headquarters, becomes the standard by which the mustering commissions determine whether the regimental clothing and equipment accords with the regulations. Samples of cloth and cuirasses are sent only to the corps clothing depots through the intendantur, for the reason that both are procured through the depots, and thence issued to the troops. As the supplying of cloth to the army is to be made the means of promoting its home manufacture (regarded as an important branch of national industry), the annual competition for furnishing the requisite amount is limited to actual German producers.

The number of pieces needed for a complete outfit of the authorized strength of (1) the men and horses of a regiment, including a small stock as reserve, and (2) of the men and horses of those troops (landwehr, etc.) of which no peace cadre exists, and which are attached to it for clothing and equipment purposes, constitutes the war supply of the regiment. Each regiment of the active army on being organized is furnished with a certain number of pieces, to be held as property in trust, which are constantly replaced by new ones procured by means of a sum annually paid to it as an indemnification for the clothing it has used (*Verbrauchs-Entschädigung*). These pieces are known as the "conto supply," the term corresponding to the so-called "Iron" funds placed in the hands of the battalion disbursing committees. The intendantur keeps an account of the articles constituting the supply, and of every increase or decrease thereof, which account must coincide with the one to be kept by the regiment. Every new piece, whether received from the corps clothing depot, or from other sources with funds obtained for that purpose, *over and above the indemnification heretofore mentioned*, is regarded as an increase, the transfer of every "conto piece" without indemnification as a decrease of the "conto" supply.

A certain period is fixed for the actual wear or use of every article of clothing and equipment (*Tragezeit*), and a definite price is established therefor, both determined from experience. The price, when divided by the number of years so fixed upon, forms the year's contingent (*fahrescontingent*) of the article, upon the basis of which is computed the amount of the indemnification on account of wear or use to which the regiment is entitled. Deducted from this amount is the cost of the cloth, cuirasses, or other made-up articles of clothing and equipment which the regiment may wish to draw from the corps clothing depot during the year. To illustrate, the *Tragezeit* of a uniform coat being, say two years, and the established price \$4, the year's contingent would be \$2. An infantry regiment having an authorized enlisted strength of 1,800—slight deviations either way are not considered—would consequently be credited annually on account of uniform coats with \$3,600. The sum of the amounts for all authorized articles of clothing and equipment found to be due to it, less the aggregate value of the material and ready-made articles it may wish to draw from the clothing depot, constitutes the amount of the clothing money it is entitled to receive for the fiscal year. If a regiment is supplied with worn articles of clothing and equipment, which may occur in the event of a demobilization, such articles are appraised by an impartial board, reduced to the value of new articles, and charged to its "conto supply" thus:

16 pieces valued each at $\frac{4}{5}$ of a piece when new	= $\frac{64}{5}$ = $12\frac{4}{5}$
12 pieces valued each at $\frac{3}{5}$ of a piece when new	= $\frac{36}{5}$ = $7\frac{1}{5}$
16 pieces valued each at $\frac{2}{5}$ of a piece when new	= $\frac{32}{5}$ = $6\frac{2}{5}$
18 pieces valued each at $\frac{1}{5}$ of a piece when new	= $\frac{18}{5}$ = $3\frac{3}{5}$
62 pieces would be equal in value to.....	30 pieces.

The total amount of clothing and equipment required on mobilization for the field and garrison armies must be provided and deposited during peace. These extensive supplies

being of course subject to deterioration when stored for long periods are renewed from time to time. To this end the articles longest on hand are replaced by the pieces newly supplied by the peace cadres from the indemnification money above mentioned. The supplies for the landwehr infantry are renewed by the regiments and battalions of the standing army with which they are connected; those for the reserve cavalry by the regiments who are charged with their formation and mobilization; those for the landwehr foot artillery and the reserve and garrison pioneer companies by the corresponding organizations of the active army.

The war clothing required and set apart for the special formations is distributed under the direction of the commanding general among the peace cadres for storage and renewal (*Auffrischung*).

MANAGEMENT OF CLOTHING BY THE TROOPS.—Each regiment of whatever arm, the sharpshooter battalion of the guard corps, each rifle, pioneer, and train battalion, as well as every special institute (noncommissioned officers' school, etc.) manages the clothing of its soldiers independently. The business is conducted by a commission of officers (*Bekleidungs-Commission*) under the direction of the commander, who is responsible for the proper condition of the clothing and equipment of his command, and the judicious application of the means furnished him to this end. The clothing commission of a regiment consists of a field officer as president, a captain, one or two lieutenants, and a paymaster, the latter, in the case of infantry and artillery, being the one of the battalions to which the regimental staff is attached. The commissions of the independent battalions are composed of a captain as president, a lieutenant, and the paymaster.

A noncommissioned officer—designated storekeeper (*Kammer-Unteroffizier*), in the cavalry and horse artillery, quartermaster—is attached to the commission to take immediate charge of the stores.

The required articles of clothing and equipment are manufactured in the workshops of the troops. Only such articles as helmets, which cannot be made up with the means at hand, are supplied by private industry or obtained from the corps clothing depots, and some articles, *e. g.*, shirts and drawers, though cut out in the shops, may be sewed by the wives of the soldiers. Civilian tailors and shoemakers are only exceptionally and under urgent circumstances employed in the manufacture of military clothing, and when so employed work under the supervision of the military cutter. The reason of this rule is to insure work that conforms to the prescribed standard; moreover, civilians cannot afford to work for the small amount per piece allowed the military tradesmen, who are provided for as soldiers.

Included in the authorized strength of each regiment and battalion are a number of tradesmen, partly trained as soldiers, who join the ersatz battalion on mobilization, and during peace are under the orders of the clothing commission. They consist of tailors and shoemakers, and in the cavalry, artillery, and train also of saddlers. The tradesmen of each branch are under the charge of a cutter or master mechanic who ranks as a noncommissioned officer. Suitable rooms are set apart in each barrack as shops; the necessary tables, stools, lamps, etc., being furnished by the "garrison administration." The tools are supplied, either by the troops out of their clothing and equipment fund, or provided by the tradesmen themselves.

The master mechanic keeps a book in which the quantities of the material received by him, and the number of the pieces cut therefrom, as well as the number of the finished pieces are severally entered. The various articles of clothing are cut according to a number of models (*Schlabonen*) and numbered according to their size, the models conforming for each army corps district to the ascertained average dimensions of the men enrolled therein; but about five per cent of the pieces made up must be of extraordinary size, to suit the needs of reserve or landwehr men whose girths have sensibly increased. The same rule applies to the manufacture of foot wear.

In the infantry and artillery there is organized, in addition to the regimental commission, a clothing commission for each battalion, consisting of a captain as president, a lieutenant, and the paymaster, to which, as a rule, are transferred for storage and administration the supplies that are intended for the battalion. These commissions keep a clothing account with the companies or batteries.

As newly made up clothing is deposited with the war supply, garments are not made according to the actual measure of the men with the colors. The clothing of the latter seems, nevertheless, to be well fitted to their persons; at all events, when out of barracks, and especially when on parade, they present a very fine appearance. This is largely owing to the fact that in addition to the war suit (*Krieg's Garnitur*), which during two years is reserved for use in case of mobilization, there is kept on hand for each active soldier a full suit (*Parade Garnitur*) worn only on grand occasions, such as inspections by the Emperor; another suit to be worn on Sundays and holidays (*Sontag's Garnitur*), besides two more suits of which the best is intended for guard and street wear (*Dienst Garnitur*), and the inferior one (*Haus Garnitur*) for use in the barrack yard inclosure, and on fatigue. It has been already stated that the newly made outer garments are at first deposited with the regimental stores. After a certain length of time, they are passed as an outfit for the reserves to the battalions, which distribute an equal number to the companies. Those last mentioned become at first the *Parade Garnitur* and gradually descend in the scale of rank as above outlined until they become the *Haus Garnitur*.

All garments intended for use in peace time are turned over to the companies, squadrons, and battalions, whose chiefs are responsible for their care. A stamp upon them shows the date of the transfer and the number of the company. Some companies distinguished for good management have even more than four suits for each of their members. Which of these suits are to be in the actual possession of the men is determined by the captains; the others are kept in the company storeroom, for the special charge of which a noncommissioned officer (*Kammer-Unteroffizier*) is detailed. Boots, shoes, and shirts issued to noncommissioned officers and reenlisted soldiers become their personal property after they have been in use the prescribed time. Accounts are kept in each company of the clothing on hand, whether in store or in possession of the men. The material in the garments which have passed through all the several stages of storage and wear above mentioned, and are not needed for use by the men furloughed to the reserve on the journey back to their homes, is used for mending purposes. A fully trained soldier is detailed in each company as tailor and another as shoemaker, who make the necessary repairs and receive a small addition to their pay from the miscellaneous fund in the hands of the captain.

The clothing commissions are jointly, and the captains individually, responsible for the safety and good preservation of the clothing and equipment in their respective charges. Supplies on hand must be arranged not only with the view to their proper preservation, but so that they can be readily inventoried.

MANAGEMENT OF CLOTHING IN WAR.—Immediately upon receipt of the order of mobilization, landwehr and other new formations are furnished with their clothing and equipment by the active regiments to which the same has been attached. The articles intended for the troops about to take the field are next sent to the companies, who at once pack up the clothing and equipment that have been in use by them for transfer to the ersatz (depot) battalion. The entire management of the clothing passes from the mobilized troops to the ersatz battalions, who, while the mobilization continues, supply not only themselves and the field troops belonging to their organization, but also the corresponding field reserve troops and those garrison battalions, special formations and nonregimental clerks, train soldiers, etc., who have been clothed and equipped for the first time by the field troops of their own respective organizations.

The regulations governing the subject of clothing and equipment in war are very comprehensive, and well calculated not only to insure adequate and proper supplies, but also to prevent loss and waste. Minute provision is also made for utilizing or preserving on demobilization all property that is in the hands of individuals and organizations to be disbanded.

**FIELD EQUIPAGE.**—This term comprises in the main what is known in our service as quartermaster stores, such as army wagons, harness, etc., also all intrenching tools not belonging to the artillery and engineers' material. The number and kinds of articles to be in the hands of every organization of troops, headquarters, and administrative department is established by special regulations, also what things are to be transported in the different wagons and how they are to be packed. With a view to reducing the number of wagons, and thereby the depth of the marching column, all vehicles are constructed on the principle of carrying the largest possible load in the smallest possible space. The load is to be distributed between the forward and rear axles in the proportion of two to three; and officers' baggage must not only not exceed a certain weight, depending upon the owner's grade, but conform to the prescribed dimensions. The following list embraces the kind of vehicles furnished for army use: Cartridge wagons; four and two horse baggage wagons; squadron baggage wagons, also arranged as field forges; four and two horse office wagons; four-horse treasure wagons; four and two horse wagons for the transportation of officials; omnibuses for clerks; map wagons; printing wagons; six-horse field forges; four-horse provision wagons; bakery wagons; four-horse bake-oven wagons; medicine wagons; wagons for the transportation of the sick; wagons for the transportation of the equipment of field hospitals. Intrenching tools are divided into portable, viz., such as are carried by the troops, and into reserve tools transported in wagons.

The administration of the equipage differs from that of the clothing and equipment in this: That for the maintenance of the former the troops are not, as in the case of the latter, furnished annually with a sum *en bloc*, but are required to provide for it out of the miscellaneous fund (*allgemeine Unkostengelder*), while purchases of new articles, when determined upon at the biennial muster, are made under the direction of the intendantur or the War Ministry. Only the field artillery, the pioneers, the railway regiments, and the train, having in actual use during peace articles coming within this category, receive lump sums each from funds available for the purpose for the maintenance of their equipage. The funds are administered by themselves on principles analogous to those prescribed for the administration of clothing and equipment funds.

**MUSTERS.**—The control over the management of the clothing by the troops is exercised at the so-called "economic musters" (facetiously termed rag parades), which are held biennially by commissions consisting of a division or brigade commander and a member of the intendantur. The inspection embraces an examination of the arms, equipage, clothing, and equipment, as well as an investigation of the administration of the various funds by the disbursing commissions. It consists of two parts, to wit: (1) Of the examination and verification of the public property, the examination of the arms which have been repaired, and of the manner in which the horseshoeing has been done (front and storeroom examination); and (2) of the examination of the books kept by the disbursing offices, the storekeepers, etc., and of the monthly cash settlement (book revision). For the purposes of the "front examination" the troops are paraded in full marching order.

The commission makes an exhaustive report of the result of its inspection. The report is divided into four parts, which are severally transmitted through the commanding general to a bureau of the War Ministry and cover the following subjects, to wit: (1) Clothing and equipment; (2) arms and funds for the repair of arms; (3) horseshoeing; (4) management

of the mess. The action of the War Ministry upon each part of the report is communicated to the commanding general (or the inspector general of the foot artillery), who transmits the communication, accompanied by his own orders, to the troops. Copies of the reports of the committee, together with all statements, explanations, cash settlements, etc., handed to it by the troops, are filed in the office of the intendantur to whose jurisdiction the troops belong, and serve as starting points at the next muster.

**TRAIN DEPOTS.**—The material of every description for the train columns to be formed on mobilization, also the reserve supplies of field equipage, are administered by the train depots. The administration of the material for the railway service belongs, however, to the railway regiments, and that for the field telegraph formations to those pioneer battalions which are charged with mobilizing them; and on that account the latter are exempted from the establishment of fortress pioneer companies. The siege and field bridge material is regarded respectively as artillery and engineer material, and is preserved in the artillery depots, in the fortifications, and by the pioneer battalions.

The material administered through the train depots is divided into two parts, viz: The train material and the field hospital utensils. The former is subject to the control of a bureau of the General War Department, and the latter to that of the medicinal division of the War Ministry. The question of the procurement, repair, and condemnation of material, when recommended on the occasion of the "economic musters," is decided by the train inspector as the representative of the General War Department as regards train material, and by the medicinal division as regards field hospital utensils. The action thus decided upon is carried out by the intendantur. The train material referred to consists of the articles required for the trains to be set up for the mobilized army corps, such as wagons, harness, intrenching tools, bureau and disbursing office utensils, printed matter and regulations, magazine equipage, bakers' and butchers' utensils, smiths' and saddlers' tools, veterinary instruments, implements for the demolition of railways, etc. Among the field hospital utensils are bandages, surgical instruments, apothecary implements, etc.

The train depots receive for the payment of the current expenses of administration an "Iron" advance, which, upon the basis of "clearing accounts" (*Liquidationen*) submitted quarterly to the intendantur, is constantly made good up to the original amount.

#### ARMS AND AMMUNITION.

**GENERAL REMARKS AND PRINCIPLES.**—Up to a comparatively recent time, the manufacture of military arms and ammunition, including the powder used for the latter, formed a monopoly of the State. The first departure from this policy was occasioned by the invention of the needle gun (*Zündnadelgewehr*) by the armorer Dreyse, for whom a special factory, managed by himself, was built by the Government. The wonderful development of machinery of every kind within the past twenty years had its effect also upon the manufacture of military arms, and encouraged by small orders which were given them at first to meet emergencies, German manufacturers, following the example of Belgian and English firms, have enlarged their plants until now Germany can boast of some of the largest gun-making establishments extant. Contrary to the former policy, firms like those of Krupp and Loewe are now drawn upon, in connection with the public establishments referred to in another part of this report, for a part of the arms needed for the army; the military interests being guarded by officers detailed to watch over and to control their operations. Two years ago the firm last mentioned supplied the German Government with 420,000 rifles of the pattern of 1888, and it is now engaged in filling extensive contracts with the Spanish and Argentine Governments, for the manufacture of the improved Mauser magazine rifle. A double advantage arises from this mode of procedure—for one thing, the inventive genius of the country

is stimulated and utilized in the interest of the army, and, besides, the public treasury is to some extent relieved from the necessity of erecting and maintaining extensive establishments whose producing power can not, at all times, be adequately employed for the army alone.

The manufacture of arms, ammunition, etc., is carried on under the direction of the Arms Department of the War Ministry by the private and public establishments designated therefor. The number or quantity to be made each year is determined by the War Ministry, according to the current requirements of the army in peace, the capacity of the several manufactories, etc., and the necessity for the collection of a reserve to provide for the case of war.

The armament of an army to be effective must be uniform, that is to say, the pieces of the same kind must be alike, not only in a general way, but must correspond closely in the adjustment of their several parts to the models determined upon conformably to experience and experiments. For this reason, and on account of its paramount importance, the procurement of arms and ammunition, and the selection of the sources of supply can not be left, as in the case of clothing and equipment, to the management of the troops, but require a centralized administration, which, except as regards the Bavarian army corps, is conducted by the Arms Department of the Prussian War Ministry. Arms are distinguished as:

PRACTICE, AUGMENTATION, AND RESERVE ARMS.—“Practice arms” are in use during peace; “augmentation arms” are intended for use in war, and “reserve arms” are kept in store for repairing deficiencies in war. The so-called “*Dispositionbestände*” consist of weapons the construction of which does not correspond to the service pattern, but which are still serviceable and may be utilized for the armament of the landsturm or other formations not included in the mobilization scheme or war plan. Both original and supplemental supplies of arms are controlled by the Arms Department of the War Ministry. The commanding generals are held responsible that all organizations embraced by their commands are in possession of the prescribed number of small arms, and that these are in every respect fit for use in war. Each battalion and cavalry regiment keeps an “arm book” (*Waffenbuch*), in which the property on hand, the receipts, and the expenditures are specifically set forth, and which is examined at the time of the biennial musters. No returns of arms are rendered.

As a rule, only the small arms required for the peace strength are in the hands of the troops, while the augmentation arms are deposited in a specially designated artillery depot. The latter are, however, accounted for in the arms books of the troops as “detached,” and each corps headquarters receives biennially through the artillery depot inspections, from the artillery depots, a statement of the augmentation arms of troops belonging to the corps, and in the intermediate years a statement showing only the changes in the quantities on hand that may have occurred. Lost or unserviceable arms are replaced by the artillery depots upon an order from the commanding general, who transmits annually to the War Ministry a statement of his action in this regard. Material for the equipment of field batteries and ammunition columns is kept in the hands of the field artillery regiments, except when lack of suitable room in the barracks makes the preservation of it impracticable.

WAR AND PRACTICE AMMUNITION.—The latter includes ammunition intended for saluting purposes. The troops of each unit of the field army carry in their boxes and knapsacks a quantity of ammunition sufficient for a large battle; a second supply is kept for them in the ammunition columns of the corps. A supply of reserve ammunition is moreover carried in one of the battalion wagons which may be required to follow the troops into the fight.

The quantity of ammunition constituting the first equipment of the troops, of the ammunition columns, and of the principal (field) ammunition depots is known as the war ammunition supply (*Kriegs-Chargirung*) of the army and is kept in the artillery depots. To what extent a second supply is to be procured and held in readiness during peace, depends upon the same principles that govern the procurement of reserve arms. To prevent

the deterioration of the war ammunition supply from age, certain quantities of it are annually issued for practice purposes.

"Practice ammunition" is either ball ammunition, and intended for target practice (*Schiessübungen*), or "maneuver ammunition," consisting of blank or dummy cartridges, and intended for the preliminary, the field, and the autumnal exercises. The annual allowance of small arms practice ammunition is fixed per head and grade of each arm, and is calculated for each battalion according to its prescribed strength. An additional quantity is allowed each such organization for experimental purposes. "Maneuver cartridges," together with the primers pertaining to them, are furnished per gun to the field and per company to the foot artillery; each battery and company receives besides, a quantity of loose powder and fulminates for other exercises. The ammunition for target practice of both branches of the artillery, as well as the requisite ammunition material for the training of the foot artillery in laboratory work, is supplied according to special regulations.

Ammunition in possession of the troops is stored and accounted for in the cavalry by regiments, and in the other arms by battalions.

While the arsenals or artillery manufacturing establishments (*Technische Institute der Artillerie*) construct or produce the arms, parts of arms, ammunition, and material for ammunition, as well as the articles pertaining to the artillery material and field equipage, it is the function of the artillery depots to preserve and administer these things, so far as they are not in the possession of the troops.

REPAIRS OF ARMS IN THE HANDS OF THE TROOPS.—The commander of each organization is responsible that its armament is constantly effective for war purposes, and must see when receiving arms from artillery depots or private gun factories that they are fully up to the war standard. While the arms need not be new, they must strictly correspond, both in their entirety and several parts, to the instructions and drawings that have been received in regard to them from the Arms Department of the War Ministry. Whenever practicable, the troops themselves repair arms that have become unserviceable while in their possession. To this end, each infantry, pioneer and foot artillery battalion, and each cavalry and railway regiment is furnished with a so-called "arms repair fund," as well as with an armorer. In the cases of the field artillery and train, the requisite repairs of small arms are made by the armorer of the nearest artillery depot. The armorer of each organization is required to train two of the men belonging to it, so that they are fully competent to make all ordinary repairs. On mobilization, each infantry regiment is accompanied by one armorer; a second one joins the ersatz (depot) battalion, and the other is utilized in connection with field reserve troops. Each battalion of the mobilized infantry regiments has one of the trained assistant armorers assigned to it. The rifles, cavalry, and foot artillery take their armorers with them into the field; but those of the pioneers and railway regiments remain behind, and the work in the several mobilized companies is done by armorers' assistants.

In addition to his salary, the armorer receives from the arms repair fund a monthly sum per head, which is paid him on the first day of the month according to the strength present.

For the transaction of the business connected with the repair of arms, two officers are detailed in each organization, upon whom also devolves, subject to the orders of the commanding officer, the administration of the repair fund. They inspect, at proper intervals, the arms of the troops and direct the armorer, who is under their immediate orders, to make the necessary repairs. They keep an "arms repair book," in which a separate page is allotted to each particular arm that has become defective from any cause, and on which is entered a statement of the date, purpose, and success of each repair.

The book and the repaired arms are examined by the mustering commission on the occasion of the biennial musters, when the account of the repair fund is also scrutinized and settled.